

The **Communicator**

A Publication Of The Surrey Amateur Radio Club

November
2018

SARC

November 2018



CONTACTS

(778) 683-4662

General Correspondence
12144 - 57A Avenue
Surrey, BC V3X 2S3
[SARC at ve7sar.net](http://SARC.at.ve7sar.net)

Operations & Training Centre
14265 - 57 Avenue

COMMUNICATOR & BLOG EDITOR

John Schouten VE7TI

WEBMASTER

Jeremy Morse VE7TMY

The **Communicator** is a publication of the Surrey Amateur Radio Club. It appears monthly, except July and August, for area Amateur Radio operators, to enhance the exchange of information and to promote local ham radio activity.

To subscribe, unsubscribe or change your address for e-mail delivery of this newsletter, notify [communicator @ ve7sar.net](mailto:communicator@ve7sar.net)

Regular readers who are not SARC members are invited to contribute a \$5 annual [donation](#) towards our Field Day fund.

SARC maintains a website at www.ve7sar.net and a Digital Communicator at ve7sar.blogspot.ca that includes recent news, past issues of The Communicator, club history, photos, videos and other information.

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On The November Cover...

We had a great turnout from both Scouts and Hams for this year's JOTA-JOTI Scouts On The Air event. This month's cover shows two Scouts learning to key their names in Morse code. This and six other activities were offered this year. The article begins on page 14.



QRM

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...from the Editor's Shack

*Do you have a photo or bit of club news to share?
An Interesting link? Something to sell or something you are looking for?
eMail it to communicator@ve7sar.net for inclusion in this publication.*

It has been another busy month locally. The October highlight was the JOTA-JOTI Scouts on the air event. John Brodie VA7XB took the lead role and did an excellent job of organization. There were seven activities for the Scouts, Cubs and Guides and early participant feedback indicates that they would like more of the same next year, where they hope to double attendance at the event. We've also received some very positive response from parents of the attendees and from the community. You'll find a complete write-up and photos of our involvement starting on page 14.

We have now completed our Fall 2018 Basic Course... Due to my holiday absence, Stan took up most of the teaching workload. Our Fall classes are typically less well attended than the Spring, but we graduated 7 new Amateurs, 5 of whom attained 'Honours', including a 14-year old who achieved 92%. Top mark was 96%. Several other students have postponed writing the exam until they complete their review of course material.

Over the winter I intend to update our course material. We canvass the students each course for their opinions

on the manual that we purchase. Many say that it is unnecessarily complex though some wish it as a reference. In future courses we will offer the book as an option but, in this digital age, we will be providing most of our background notes via the Web to augment our slides.

Your Directors are working on a proposal to amend the Club's name and this will be discussed and voted on November 14th. Several recommendations have been made but we do not recommend something radically different. We recognize that SARC has a proud, almost 50 year history, but times change, and the Directors feel that the name must better reflect our community responsibilities. Please refer to the notice on page 45.

Finally, please remember to register for the Christmas Luncheon by November 30th. It will be held on December 8th at the Guildford Golf & Country Club, 7929 152nd Street. Members of SEPAR, the Langley Amateur Radio Association and White Rock Amateur Radio Club have been invited to join us. There will be door prizes too!

~ John VE7TI
Communicator Editor

On the Web

ve7sar.net

Between newsletters, watch your e-mail for news, announcements of Amateur Radio events, monthly meetings and training opportunities.

Click the links below to follow our presence on the web:

SARC Blog
ve7sar.blogspot.ca

Twitter
[@ve7sar](https://twitter.com/ve7sar)

FaceBook
[SurreyAmateurRadio](https://www.facebook.com/SurreyAmateurRadio)

Our YouTube Channel
[SurreyARC](https://www.youtube.com/SurreyARC)

SARC Photo Albums
Web Albums

or
tinyurl.com/SARCphoto

Dogs Can't Operate MRI Scanners, But Cats Can—Anonymous

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The Rest Of The Story...

Archie Frederick Collins

Radio Developer and Author



Archie Frederick Collins

Archie Frederick Collins (January 8, 1869 - January 3, 1952), who generally went by A. Frederick Collins, was a prominent early American experimenter in wireless telephony and prolific author of books and articles covering a wide range of scientific and technical subjects. His reputation was tarnished in 1913 when he was convicted of mail fraud related to stock promotion. However, after serving a year in prison, he returned to writing, including, beginning in 1922, *The Radio Amateur's Handbook*, which continued to be updated and published until the mid-1980s.

Early life

Collins was born in South Bend, Indiana to Captain Thomas Jefferson and Margaret Ann (Roller) Collins. He attended public schools and graduated from the Old University of Chicago, a Baptist school which preceded the present University of Chicago. His brother was author Dr. Thomas Byard Collins. After graduating, he began working for the Thomson-Houston Electric Company in Chicago in 1888. He married Evelyn Bandy on June 28, 1897, and they had a son, Virgil Dewey Collins, who also became an author, sharing writing credits on some of his father's books. Collins resided at a summer home called "The Antlers" in Rockland County, New York in the hamlet of Congers, and had a second residence in Florida. His winter residence was New York City, and he died in Nyack, New York.

Wireless telegraphy

Collins conducting experiment to use a human brain as a radio wave detector

Collins professional interests focused on radio, an exciting technology which was in its early stage during his lifetime. Heinrich Hertz had discovered radio waves in 1887, and Guglielmo Marconi developed the first practical radiotelegraph transmitters and receivers in 1895. Collins became an expert in radio technology, writing many books on the subject, and conducting research on improving radio components.

An unusual example were his experiments in using brain tissue to detect radio waves. The first radio receivers prior to 1904 used a primitive device called a coherer to detect the radio waves. The poor performance of the coherer led to much research to find a better radio wave detector. Collins was intrigued by reports of people "predicting weather" by aches and pains in their body, and examples of lightning strikes, which were strong sources of radio waves, causing convulsions in nearby people who were not actually struck. Since the brain was known to operate electrically, Collins thought it might be sensitive to radio waves. He applied DC current from a battery to two electrodes in dissected animal brains, causing a small current through the tissue, as in a coherer. Then he radiated the brain with pulses of radio waves from a Hertzian spark radio transmitter, and listened with earphones to the circuit. If the radio waves caused changes in the conductivity of the neural tissue, it would cause transient changes in the current, which would be audible as "clicks" in the earphones. His research culminated in experiments on a fresh human

brain from a cadaver. Collins claimed that the brain had a 'cohering' effect, its conductivity changed when irradiated. However other researchers were unable to reproduce the effect.

Wireless telephony

The "spark" radio transmitters during Collins time could not transmit sound (audio) as modern AM and FM radio transmitters do. This was because the discharge of a spark cannot produce continuous waves, but only damped waves. Instead they transmitted information by telegraphy, the operator turned the transmitter off and on by tapping on a switch called a telegraph key to produce different length pulses of damped radio waves, to spell out text messages in Morse code. By the last years of the century, many wireless researchers such as Reginald Fessenden, Ernst Ruhmer, William Dubilier, Quirino Majorana, and Valdemar Poulsen were working to develop continuous wave transmitters which could be modulated to carry sound, radiotelephony.

Collins began researching the topic on his own in 1898. In November 1899, the American Wireless Telephone and Telegraph Company, headquartered in Philadelphia, Pennsylvania, was founded by stock promoter Dr. Gustav P. Gehring as the first American radio communications firm. Initially Collins acted as that company's primary technical advisor, however, he soon had a falling-out and left the firm, even demanding that his photograph in a company prospectus be altered to make him unrecognizable.

Collins returned to doing his own research, investigating, in turn, wireless telephone systems that employed conduction, induction, and finally radio waves. He established a small laboratory at No. 132 South Sixth street in Philadelphia, forming a developmental company that initially was privately financed and did not sell stock to the public. After doing initial tests within a bowl of water, he reported that he then made steady, although somewhat

limited, progress with the conduction and induction approaches, achieving transmission distances of 60 meters (200 feet) in 1899, 1.5 kilometers (1 mile) across the Delaware River in 1900, and 5 kilometers (3 miles) in 1902. That same year he constructed two experimental stations at Rockland Lake, New York, separated by 1.5 kilometers (1 mile), that successfully established two-way communication. In 1903, he made short-distance tests in the Hudson River in New York City, aboard the ferryboats John G. McCullough and Ridgewood, and in July of that year predicted that "in a comparatively short space of time I am confident I shall telephone across the ocean".

Collins' conduction and induction wireless telephone apparatus was similar to that employed by Alexander Graham Bell, Amos Dolbear and Nathan Stubblefield. Bell's work never went beyond the demonstration stage, and Dolbear's patent, controlled by the American Wireless Telephone and Telegraph Company, was ruled by the U.S. courts to be largely impractical. In 1902 Stubblefield sold the rights to his system to the newly formed Wireless Telephone Company of America, and by August that company's advertisements stated that "Nathan Stubblefield and Prof. A. Frederick Collins are now working together for the sole benefit of that company", and there were plans to "license subsidiary companies in each state of the Union". However, Stubblefield had actually withdrawn from the firm in June, due to his concerns that it was primarily a fraudulent stock promotion scheme.

In May 1903, Collins formed the Collins Marine Wireless Telephone Company, which was later renamed the Collins Wireless Telephone Company, and served as technical director until 1910. Despite Collins' initial optimism, he had no more success than the others in developing a commercial system using conduction or induction transmissions, due to the inherent limitations of these technologies. He next began developing a radiotelephone that employed continuous-wave radio signals. In 1904,



... "spark" radio transmitters during Collins time could not transmit sound (audio) as modern AM and FM radio transmitters do

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The full compensation

Danish inventor Valdemar Poulsen had introduced the arc-transmitter, which, unlike the intermittent pulses produced by spark transmitters, created steady signals that could be used for amplitude modulated (AM) audio transmissions. Poulsen had sold the U.S. rights to his patents to the Federal Telegraph Company, but Collins claimed that he had independently begun research on the same idea in 1902.

Collins was granted U.S. patent 814,942 on March 13, 1906 for an arc-transmitter improvement which separated the telephone microphone circuit from the arc circuit, to avoid the problem of the arc current burning out the microphone. Although this was merely an incremental improvement on existing arc-transmitter technology, the company's stock promotion advertisements claimed this patent was "a broad one, covering the fundamental principles for transmitting and receiving articulate speech without connecting wires" that was supposedly "considered by the highest authorities on patent law to be one of the strongest to be issued since the one granted to Bell in 1876". (Early purchasers of Bell telephone stock had reaped fortunes, so it was a common tactic for early radio company stock promotions, aimed at impressionable "get-rich-quick" buyers,

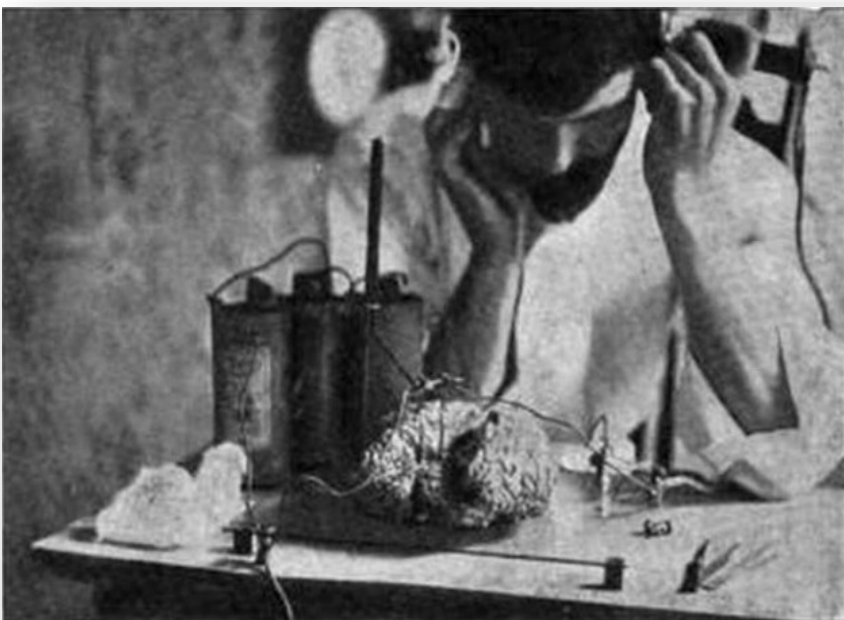
to suggest that similar increases would occur).

The electromagnetic radiation (radio waves) produced by arc-transmitters was created by an electric arc burning between two electrodes. In Collins' case the electrodes rotated in opposite directions, to provide even wear of their surfaces, thus was called a "revolving oscillating arc". Collins also developed multiple unit water-cooled microphones which could carry heavier currents of 8 to 10 amperes. For a receiver, he used a thermo-electric detector of his own design.

Collins began making demonstration radiotelephone transmissions from his lab at 51 Clinton Street in Newark, New Jersey that were sent to increasingly distant locations. On July 9, 1908 a test was heard at the Singer Building in New York City, 19 kilometers (12 miles) away. Transmissions over the next two days were reportedly received in Congers, New York, 56 kilometers (35 miles) distant, and Philadelphia, a distance of 130 kilometers (81 miles). After witnessing an October, 1908 demonstration at the New York Electrical Show, Guglielmo Marconi was quoted as saying: "Wireless telephony is an accomplished fact, and to Mr. Collins is due the credit of its invention... The clarity of the transmitted voice is marvelous." In 1909, Collins claimed that his company had established four radiotelephone links operating simultaneously between Portland, Maine and a nearby island, although there is little evidence that this was true. That same year he exhibited his wireless telephone at the Alaska-Yukon-Pacific Exposition and was awarded a gold medal

Despite Collins' reported successes, his efforts actually fell short of creating a commercially viable radiotelephone. This was also true for other experimenters doing arc-transmitter radiotelephone research during this period, including Lee de Forest and Charles Herrold. Despite their best efforts, arc-transmitters would prove to be too unrefined to be usable for audio transmissions, and a successful

Frederick Collins demonstrating an induction wireless telephone (circa 1903)



radiotelephone would not be realized until vacuum-tube transmitters were developed in the mid-1910s.

In December 1909, the Collins Wireless Telephone Company was merged with three others—the Pacific Wireless Telegraph Company, the Clark Wireless Telegraph Company, and the Massie Wireless Telegraph Company—to form the Continental Wireless Telephone and Telegraph Company, with Collins the new company's Technical Director. Advertisements claimed that Continental was in the process of creating a nationwide service. However, in view of the increasingly shady reputation of its officers, both Walter Massie and Thomas Clark soon withdrew from participation.

Mail fraud prosecution

Collins participated in demonstrations promoting stock sales, which over time included extravagant and misleading claims. A common company tactic was to set up a demonstration at a hotel in a targeted town, and, after successfully talking between two rooms using the short-range induction system, claim that a community-wide radiotelephone exchange had also been perfected, and would be installed pending financing by local stock sales. These tests were widely publicized, featuring promotional photographs of prominent persons, including William Jennings Bryan and U.S. President William Howard Taft, using the company's devices. The company also claimed that soon "every auto will be provided with a portable wireless telephone". However, the radiotelephone systems were never actually constructed.

Concerned by excesses in the radio communications industry, the U.S. federal government instituted a series of prosecutions, and in June 1910 inspectors from the United States Postal Department began making arrests, beginning with officials of the notorious United Wireless Telegraph Company. In December 1911 Collins and three of his associates were arrested, and charged with mail fraud in connection with the promotion of both Collins Wireless and its Continental

Wireless successor. The indictment charges included overstating the scope of the company's patents, and also fraudulently claiming that its radiotelephone equipment had been perfected to the point that it was ready for widespread commercial deployment. In a trial that ended in early 1913, Collins was one of the three defendants found guilty, and was sentenced to three years' imprisonment, although he would be released after serving one year.

Publications

Collins began his writing career in 1901, and his articles about wireless telephony appeared in *Electrical World*, *Scientific American*, *Encyclopedia Americana*, and other encyclopedias. He also wrote numerous technical articles and books on wireless telegraphy and telephony in the first two decades of the 20th century. His 1913 *Manual of Wireless Telegraphy and Telephony* provided a detailed and illustrated explanation of his electric arc wireless telephone transmitter and receiver, along with a general coverage of the state of the art.

Following his release from prison in 1914, Collins did no further work as an electrical engineer. Embittered by his treatment, in 1917 his wife, Evelyn, filed for a separation, stating that Collins "had come back to freedom... with his disposition ruined", "soured against the world, soured against even his benefactors, and soured against her", and engaging in "long harangues and tirades of invectives against the world in general and the United States government in particular". However, he eventually re-established himself, and, appearing as himself in one of his juvenile novels, proclaimed that although he had suffered "hard falls" and was "stoop-shouldered" from "the weight of his own tragedies", he was persevering because he was "a bit battle scarred but my skin is as thick as that of a rhinoceros". He continued authoring an impressive number of books covering a variety of topics, many intended for younger readers. In particular, he was an enthusiastic



...soon "every auto will be provided with a portable wireless telephone".

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proponent of amateur radio, writing in the 1915 *The Book of Wireless* that "All you need to become a member of the great and growing army of wireless boys is the desire to own a station, and the rest is easy", while offering to personally answer any letters requesting assistance with technical problems. In 1922 his *The Radio Amateur's Hand Book* was introduced, which was reprinted in at least 15 revised editions over the next 61 years.

In the fiction arena, his three-part "Jack Heaton" adventure series reviewed its title character's exploits as a Wireless Operator (1919), *Oil Prospector* (1920) and *Gold Seeker* (1921). However, most of his works were non-fiction. By 1919 his books included *Inventing for Boys*, *Handicraft for Boys*, and *The Boys' Book of Submarines*. The 1922 edition of *The Book of Wireless Telegraph and Telephone* lists 22 additional titles, ranging from *Boys' and Girls' Book of Outdoor Games* to numerous scientific and technical subjects, including *The Amateur Chemist and Gas*, *Gasoline and Oil Engines*. Many of his books, such as *The Boy Scientist*, (1925) had comprehensive illustrations and few equations, with an emphasis on "hands-on" experimentation, at a level intended for high school students. After discussing the "Einstein Theory," Collins tells his readers how to build a spectroscope, a radio receiver, and an x-ray machine for home experimentation. In 1941, a book review reported that "A. Frederick Collins has to his credit some 37 'self-help' and practical books ranking from

chemistry and electricity and the stars to household mechanics, your car, and gardening." He eventually wrote about 100 books on scientific and technical subjects, hobbies, and sports, plus over 500 articles in technical and scientific magazines and journals.

Legacy

Collins' writings played an important role in disseminating information about early radio advances (then known as "wireless telegraphy and telephony"), and, in the foreword to 1922 edition of *The Radio Amateur's Hand Book*, he included "Historian of Wireless 1901-1910" among his accomplishments. (He also claimed the title of "Inventor of the Wireless Telephone 1899"). Donald McNichols, who would later serve as president of the Institute of Radio Engineers, stated that Collins' "How to Construct An Efficient Wireless Telegraph Apparatus at Small Cost", which appeared in a 1902 issue of the *Scientific American Supplement*, "did more to introduce the art of amateur radio than anything else that had appeared". McNichols later expanded his remarks, writing: "amateur experimenters in wireless were at that early date provided with descriptive text enabling them to set up equipment for the duplication of experiments performed by the foremost workers. Undoubtedly Collins's articles on wireless started many of the amateurs and engineers on the road to whatever success they achieved".

Alan MacDiarmid, the 2000 Nobel Prize Laureate in chemistry, said that Collins' 1924 book *The Boy Chemist* so inspired him as a boy in New Zealand that he kept renewing it from the public library for almost a full year in order to complete all the experiments.

And that is the rest of this story.



Wire Snippets

Would you like to “curl up with a good book”? Look no further, says Daniel Del Vecchio VA7DDV than the video on this link: The video discusses the many aspects and benefits of the ARRL Handbook:
<https://www.youtube.com/watch?v=RtpgfHs9174&feature=youtu.be>

New free trade deal with U.S. will see Canada's duty-free limit raised to \$150 from \$20... Start shoppin'!
<https://www.cbc.ca/news/business/de-minimis-duty-free-1.4845458>

Here is another great example of Emergency Communications in time of disaster: Florida ARES Teams handle hurricane:
<http://www.arrl.org/news/view/northernflorida-ares-teams-handle-hurricane-duty>

US Senator highlights ham radio's disaster response role

US Senator Roger Wicker of Mississippi has tweeted about the work radio amateurs have been doing in assisting with disaster response efforts in Florida after Hurricane Michael.

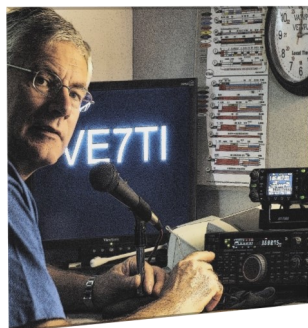
He notes these trained volunteers help transmit critical communications to areas with no electricity, phone, or internet service. He included a link to the WFLA TV News broadcast by Victoria Price in which she interviewed Lee Paulet KK4VNZ. Watch the report at:

<https://www.wfla.com/news/local-news/citrus-county/amateur-radio-operators-provide-hurricane-aid-through-the-airwaves/1517963826>

Senator Wicker's Tweet:

<https://twitter.com/SenatorWicker/status/1052262347992178689>

November 2018



Back to Basics

John Schouten VE7TI

From The Canadian Basic Question Bank

This month we'll look at percentage of modulation and overmodulation. In all the exams I have administered, this topic is always covered. It's important because it has the ability to cause significant issues on the air. The impact of this is highlighted by the fact that it is repeated a half-dozen times in the Basic Question Bank with slightly different wording, for example:.

B-001-019-004

The maximum percentage of modulation permitted in the use of radiotelephony by an amateur station is:

- A. 100 percent**
- B. 50 percent**
- C. 75 percent**
- D. 90 percent**

When you transmit a signal, you do so over what's called a carrier frequency. This is a relatively constant oscillation, usually in the radio frequency band, that gets modulated (altered) by the signal. In terms of radio use, the modulation is generally (but not always) a waveform produced by the human voice, music or other audible means.

For example, either the amplitude or the frequency of the carrier gets modified (or "modulated") by the signal, hence "AM" - (Amplitude Modulation) and "FM" - (Frequency Modulation).

When this modulation is so large that the carrier signal clips (distorts, in the case of AM) or the frequency changes to such a degree that it goes beyond the range that the receiver can pick it up or overlaps other carrier frequencies (in the case of FM), the signal is said to be overmodulated.

Likewise, if the signal is of such small amplitude or frequency variation that it cannot be picked up or adequately amplified by the receiver (because of background noise and/or the strength of the carrier frequency), it is said to be undermodulated.

Overmodulation is the condition that prevails in telecommunication when the instantaneous level of the modulating signal exceeds the value necessary to produce 100% modulation of the carrier. In the sense of this definition, it is almost always considered a fault condition. In layman's terms, the signal is going "off the scale". Overmodulation results in spurious emissions by the modulated carrier, and distortion of the recovered modulating signal. This means that the envelope of the output waveform is distorted.

In the image on the next page, an amplitude modulated sine wave:

- 0% unmodulated, the sine envelope is not visible at all;
- Less than 100% modulation depth is normal AM use;

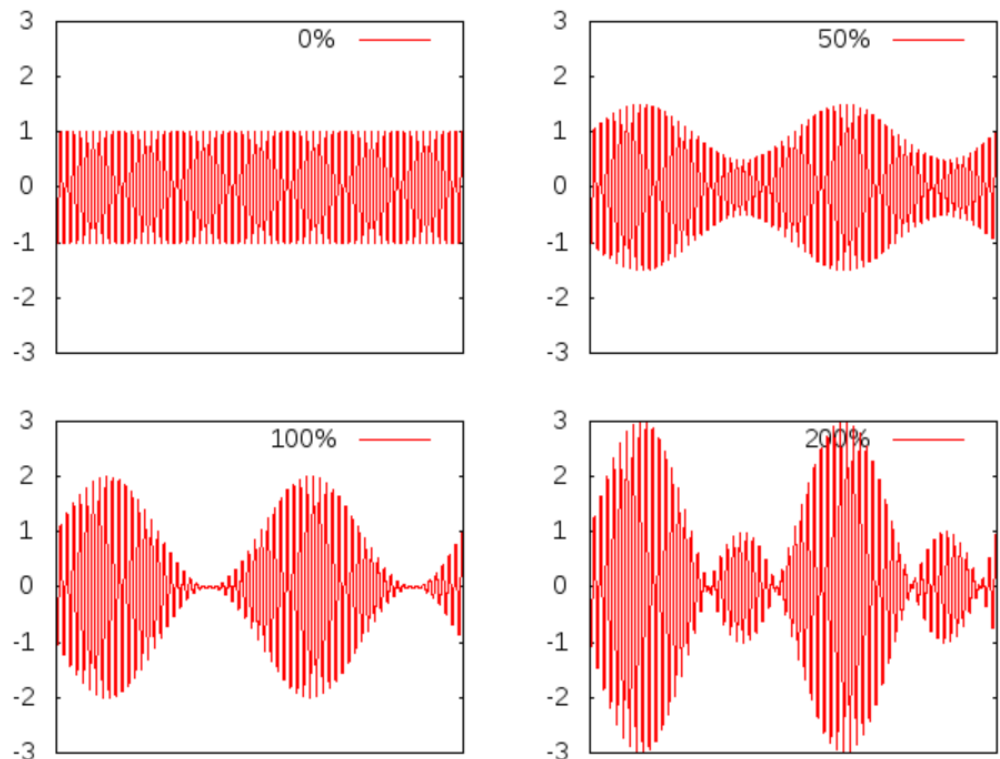
*Yes, you too **can** pass the Basic exam!*



- 100% modulation depth, the sine envelope touch at $y=0$. Maximum modulation that can be retrieved with an envelope detector without distortion;
- At greater than 100% modulation depth, "overmodulation" occurs and the original sine wave can no longer be detected with an envelope detector.

Therefore, the answer to our sample question at the top of this article is **A. 100 percent**.

~ 73, John VE7TI

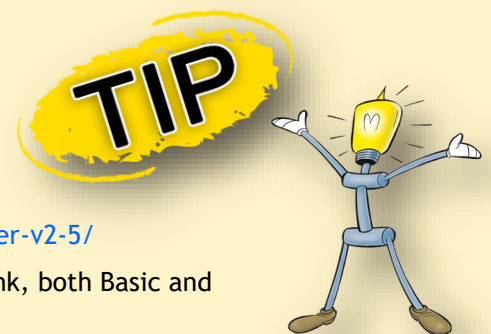


Study Links

Whether you are new to the hobby or brushing up on skills, you should find these study links helpful:


1. RIC-7 is the entire up-to-date Industry Canada (IC) Basic Question Bank.
<http://tinyurl.com/CanadaBasicQB>
2. There is a RIC-7 that has some explanations along with the questions.
[RIC-7 2014rev08.05 with explanations](#).
3. The Amateur Radio Exam Generator is at:
https://www.ic.gc.ca/eic/site/025.nsf/eng/h_00040.html
4. The ExHaminer Study software for Windows is at: <https://wp.rac.ca/exhaminer-v2-5/>
5. The Ham Study website has a flash card approach to learning the Question Bank, both Basic and Advanced. It is at: <https://hamstudy.org>

Contact SARC if you wish to write the Basic or Advanced Exam. If you pass we'll even give you a year's free membership!



November 2018

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Sun	Mon	Tue	Wed	Thu	Fri	Sat
<p>For details on all SARC events, go to ve7sar.net</p> <p>For details on all SEPARS events, go to separ.shutterfly.com/calendar</p>				1	2	3 08-1000 Club Social: Kalmar Family Restaurant King George Blvd & 81st Avenue CONTEST: ARRL Sweepstakes—CW
4 CONTEST: ARRL Sweepstakes—CW Maple Ridge ARC Swap Meet	5	6 1930 SEPAR Net 2000 SARC Net	7	8	9	10 08-1000 Club Social: Kalmar Family Restaurant Discover Amateur Radio Workshop: Richmond ARC CONTEST: WAE DX Contest - RTTY
11  Remembrance Day CONTEST: WAE DX Contest - RTTY	12	13 1930 SEPAR Net 2000 SARC Net	14 1900 SARC Special & General Meeting	15	16	17 08-1000 Club Social: Kalmar Family Restaurant CONTEST: ARRL Sweepstakes - SSB CONTEST: VECTOR 2m Simplex (see page 32)
18 CONTEST: ARRL Sweepstakes - SSB	19	20 1930 SEPAR Net 2000 SARC Net	21	22	23	24 08-1000 Club Social: Kalmar Family Restaurant CONTEST: CQ WW DX - CW
25 CONTEST: CQ WW DX - CW	26	27 1930 SEPAR Net 2000 SARC Net	28 SARC Exec Meeting	29	30 Register for the Christmas Lunch by today!	

Contest Details: <http://hornucopia.com/contestcal/contestcal.html>



Page 13—News You Can Lose

The Lighter Side of Amateur Radio

FT-8 and FT-88: Which To Use?

HORSESHOE LAKE, WISCONSIN — Local ham radio operator and self-avowed bachelor Gianni Balboa says his latest creation will revolutionize the lonely hearts of the hobby.

The prize winning tailor (his garment making took 1st place at the 2004 Cumberland County Fair) has developed a new digital software format designed for the amorous ham.

"I call it FT-88s," says Balboa. "It will whisper your call sign to hams of the opposite gender and you'll be making contacts in no time!"

Designed to run on a home computer, the software comes in both "male" and "female" versions.

Transmitting on a 15 second cycle, the male FT-88s client includes several preset messages including:

HOW YOU DOIN'?

DO YOU COME HERE OFTEN?

DO I KNOW YOU FROM SOMEWHERE?

WHAT'S YOUR (CALL)SIGN?

Female version, preformatted messages include:

NO COPY; I HAVE OTHER PLANS

SORRY, I HAVE TO WORK DX LATE

I'VE SEEN BIGGER SIGNALS

Balboa says the software will exchange the "kissing emoji" with the correct keystrokes.

He adds that third-party software will allow you to swipe left for logging to HRD log and swipe right for logging to AC Log.

Talking to reporters while exercising at his home gym/hamshack, he says QSOs will be digitally signed automatically and transferred to both

NRRL's Logbook of the Globe and www.hothamradiooperators.com.

By WBORUR, on the scene



LITTLE FORK, MINN. — A local amateur radio operator says FT8 needs to do more to live up to its reputation of destroying ham radio.

"Who are they trying to kid? FT8 needs to step it up if it's going to ruin ham radio like everyone says," said Cecil Donahue.

The popular digital mode is being perceived by some as taking away from sideband and CW activity.

"Here's the deal - the mode involves a radio, RF, logging the contact, and many other facets of normal everyday operation in any other mode," says Donahue. "They really missed the mark if they're trying to destroy the hobby."

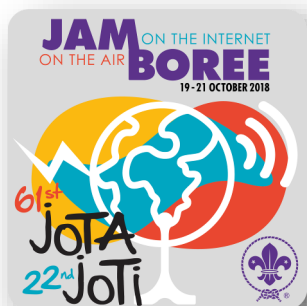
Not one to complain without offering a solution, he suggests a better way.

"What they should have done is connect a computer to the internet and let people talk to each other that way. See? That's not ham radio at all."

By K5KVN, on the scene

~ Ham Hijinks

November 2018



Our JOTA-JOTI 2018 Experience

John Schouten VE7TI

Scouts On The Air



Above: Michael VE7GMP makes like a monkey to secure a fox antenna.

Below: Stan VA7NF and Michael VE7GMP untangle what will become the OCF Dipole antenna



Jamboree On The Air and Jamboree On The Internet (JOTA-JOTI) is the largest Scouting event in the world with over 1.8 million Scouts participating across 150+ countries. Scouts and Guides across the world connect with each other during JOTA-JOTI using the airwaves and the Internet. While in past years the event was hosted at our Operations and Training centre, this year we were invited to set up at the Scout's Camp McLean, located at 20315 16 Avenue in Langley. Over 100 Scouts, Cubs and Guides attended with many camping overnight.

JOTA/JOTI is an annual World Scouting event that was first held in 1957. The event unites Scouts with their Scout friends world-wide. The purpose is to meet each other, exchange ideas, learn from each other, and gain mutual understanding. Contacts between the Scouts are made via Amateur Radio and in a supervised Internet chat room. The youth attending learned about radio communication and Internet safety. Scouts Canada gave special thanks to the Surrey Amateur Radio Club, the Langley Amateur Radio Association, and the TELUS Wise® team for volunteering their time to facilitate this great event.

Lower Mainland Scouts had a chance to meet and talk with Surrey and Langley's ham radio operators to see for themselves what the Amateur Radio Service is about, as Scouts worldwide take to the airwaves using both voice and digital communications. There was also a demonstrations of satellite contacts, Morse code training and hidden

transmitter hunts (aka "foxhunting" or RDF - radio direction finding) to give participants a chance to experience all facets of the hobby.

Fortunately, the weather though cool and foggy was clear once the sun broke through the mist, both on Friday setup and on Saturday during the event. Each group varying from 3 to 15 Scouts was rotated through the various activities between 9 am and 5 pm.

Activities

Seven different activities were presented by SARC and LARA members, as follows:

Introduction to Amateur Radio

-John VE7TI reporting

The Introduction to Amateur followed a format that has been successful for SARC and SEPAR in presentations to schools and youth groups in the past. It consists of a 20 slide PowerPoint presentation and practical demonstrations of the topics presented. These include What is radio?, HF, VHF, CW, Satellites and Amateur Radio's role in community service. The videos used included the excellent RSGB's ["Amateur Radio: A Hobby For The 21st Century"](#).

The presentation was adjusted to the age group present. Obviously the older Scouts had a better grasp of the material. For the younger crowd the emphasis was on the demonstrations, which included tin can and string communications, a basic experiment that was previously unknown to them. (*Am I getting that old? - Ed.*)

By far the highlight for all age groups was a show of our [air cannon](#), used to launch a weighted tennis ball over the tall trees for erection of wire antennas.

HF Station

-Stan VA7NF reporting

Several members including Dave VA7DRS, John VE7TI, Stan VA7NF, Michael VE7GMP and John VA7XB arrived at 2 pm on Friday before the event to set up our 100 ft tall "bigfoot" tower with the tri-band TH7 beam on top, an OCF wire antenna and Stan's Flex 6700 SDR in the SEPAR trailer. The open air chapel at Camp McLean worked well as the venue for the HF introduction.

Each introduction started with the radio tuned to a ham talking and an explanation that they were anywhere in the world. That followed with showing the only thing connected to the radio was an antenna on our big-foot tower. An introduction to the radio equipment and what the screen was showing including frequencies and the 20 second history (waterfall). They picked up instantly that all those waterfall traces were people talking. We discussed callsigns and identified the location of various stations, which were normally on the USA east coast or Texas.

Since the Illinois and New York QSO Parties were active this weekend, we tuned between various stations and upon hitting a contest station talked a bit about Radio Sports drawing a parallel to racing go-carts and how contest stations were each trying to make the most contacts.

If I found a JOTA station we attempted a contact (and oops, many times the power was down to zero due to CW "playing around" from the earlier session). Most earlier sessions had many cubs/Scouts talking to either other Scouts or the many friendly hams contacted. At the end the radio was switched to CW and the power dropped to zero; they loved playing dit and dah with the keyer.

Side topics were skip, lighting a 100 watt light bulb with RF, but strangely no one

had a problem tuning in SSB. They loved the hands on while papa bear kept a close eye on activities.

While we only made a few JOTA contacts, stations from Italy, Mexico, Brazil and Hawaii were heard.

VHF/UHF Station

- Dave Sinclair VA7DRS reporting

The **VHF/UHF Station** was hosted by Don Dangelmaier VA7AB using 2 radios on the Langley and Surrey repeaters as well as simplex to make local contacts. Assisting Don were volunteers who made themselves available at their home stations to respond to JOTA calls, answer questions and engage the Scouts in conversation about amateur radio and Scouting. Special thanks go out to LARA members Marilyn Sergi VE7OSS, Pat Dangelmaier VE7PRD, and Doreen Mercer VA7WAR who logged over 50 contacts with the Scouts. Thanks also to SARC member Rob Gilchrist VE7CZV who made many additional contacts on the Surrey repeater.

The **IRLP** station was hosted by Jason Biggin VA7ITJ using a Yaesu Fusion digital mobile radio and stick antenna to connect to the Maple Ridge and Penticton repeaters and the JOTA reflector. About 12 contacts were made before problems were encountered with the antenna coax. Simplex was also used while the problem was being diagnosed and repaired. The Scouts showed an active interest when they succeeded in making a radio connection.

Dave Sinclair VA7DRS hosted the **Winlink** station using a grab & go kit with a built-in modem to connect to the Telephone Pioneers Station in Burnaby on 145.090. The Scouts enjoyed sending email from Camp McLean using VHF radio.

Public Service/Emergency Communication

- Don Hamilton VA7GL reporting

Chris Cowx VA7CWX, Jim Hurrell VE7HUR and Stewart Miller VA7VSM assisted Don Hamilton VA7GL.



Above: Stan VA7NF at the HF station



Below: Chris VA7CWX at the public service station

November 2018

We set up 2 tables in the “Archery Barn” with 5 base stations consisting of 2 ICOM 2820s, 1 Kenwood 710G, VE7HUR’s portable station, and a Langley iCOM field kit. Each base station was paired with a handheld radio set to the same frequency. Jim’s station and the iCOM radios used UHF simplex to give a good signal throughout the entire Camp McLean campus.

After a quick introduction, each team was assigned its task. The Scouts needed some assistance to do the first task and to interpret the instructions, find the information and relay it back to the EOC team member. After they completed one task, we found that the Scouts could run the next set of exercises with very little assistance.

We felt that we accomplished our goals:

- a) Introduce the Scouts to Amateur Radio
- b) Demonstrate how amateur radio can assist with Public Service and an emergency
- c) Create a fun event that used Scouting goals

The scenario and instructions given were as follows:

This JOTA station is designed to help you understand what Radio Amateur volunteers can do to help during an earthquake, tsunami, ice or solar storm to mention a few. In cases of extreme emergencies you could be without traditional communications. The electric power lines and telephone lines could be useless. Cellular systems will be easily overloaded and will likely crash without notice. That means no phones or Internet, and no power to charge your smart phone or tablet. This could go on for days or even weeks.

From this station you will be travelling to pre-determined remote locations and asked to observe, document and report via amateur radio what you see and learn. You will be using a radio to relay your findings into the Emergency Operations Centre (EOC). This new and local information is vital in order to assist in getting the right people and equipment to your disaster location.

TEAMS and TASK: We like to have 2 person teams, one in the “field”, the other the

“EOC”. Each person has a radio, a pen and their “task-sheet”. The “field” member is sent to a location with a handheld radio to report what they find at the given location, then transmit that information to the EOC who will write it down on their task-sheet. The EOC member will write the message as it is heard from the radio and will repeat it back to the field member until the EOC and the Field member both have the same report. When information exchange is complete, return to the EOC and switch places with your partner. Now your partner is the field member and is sent to a different area to observe, document and report.

Foxhunt

- Les Tocko VA7OM

Michael Birtles VE7GMP assisted Les.

Radio ‘Sport’ (aka RDF, foxhunt or hidden transmitter hunting) techniques were demonstrated. We had two foxes (transmitters) running in beacon mode (continuous transmit) at 3.55 and 3.60 MHz, 5W each.

The first transmitter was located about 150 meters north from the start and the second 150 meters south.

Using 3 receivers, the Scouts were paired up (2 or 3 Scouts with one receiver). The goal was to find both transmitters and come back. The average time was 30 minutes, best time 13 minutes.

In retrospect, we could have used more receivers.

The Scouts and their parents liked the foxhunt and looking forward to next year’s event, perhaps coupling it to an orienteering exercise.

Feedback on the foxhunt was overwhelmingly positive - the kids appeared to have great fun searching for strange objects hidden in the woods. Most groups were able to complete the challenge in well under the allotted hour. A change for next year might be to add another fox or two or increase the difficulty of the ones emplaced.

Morse Code (CW) & Phonetic Alphabet

- John VA7XB reporting

Our verbal introduction was kept to 10 minutes as it has been noted in past JOTA events that active participation works better than “talk” for this age range of Scouts.



It was explained to the Scouts that amateur radio operators typically use any one of 3 modes of communication - voice, Morse code and digital.

The exercise began by a discussion and demonstration of the first two of these modes, including an introduction to the phonetic alphabet. This was followed by a few introductory words about Morse Code and its history.

Each Scout was given a work sheet to spell out his/her name and look up the phonetic name as well as the Morse Code sound for each letter. We pretended that they were communicating by radio under conditions of high noise, QRM and fading; the person at the other end (me) was having difficulty understanding their name so each in turn spoke his/her name phonetically so that I could copy it correctly. The Scouts seemed to enjoy this exercise and really got into the spirit of it.

Then after a short demonstration of what Morse code should sound like and how to send it with a hand key, the Scouts sounded out their names in code using the code practice oscillators we had

on hand. The cacophony was part of the fun as they experimented with the volume and tone controls to make weird sounds while practicing their sending.

Because we were not short of time, I also explained how modern radios use electronic keyers and paddles to reduce the effort of sending Morse code. Each Scout got to use the paddle to send his/her name.

Satellite Contact

-John VE7TI reporting

There were few useful passes during the event however, during the lunch pause Fox 1A (AO-85) made a pass at 33 degrees to the east. With a number of Scouts in attendance, we were able to monitor the exchange of contacts but it proved too busy for our group to make a 2-way QSO.

Acknowledgements

We would like to pass on a big “Thank You” to all the participants from SARC, SEPAR and LARA. Thank you also to the Port Coquitlam Emergency Preparedness Communications group (EPCOM) and Port Coquitlam ESS for the use of the radio equipment at the VHF station.

Update:

See the follow-up article in the Langley Times:

<https://www.langleytimes.com/community/video-scouts-in-langley-learn-how-to-communicate-during-emergencies/>



November 2018



At The Last SARC Meeting

October General Meeting Minutes

Wednesday, October 10, 2018

Location: Emergency Management BC

Meeting Start Time: 7:06pm

Attendees: 33

Welcome

Stan Williams welcomes everyone to the meeting including visitors from as far away as New Westminster and Salmon Arm.

Financial Report

Scott Hawrelak

Last chance of the year to purchase a name badge for \$10. Another order will be placed in the spring if you missed out.

Membership report

John Brodie

Just sent a notice out a couple days ago to those members (about 12) who haven't paid their dues yet saying it's last call for dues. We are currently between 80-100 members. Those that have not paid by end of October will be removed.

OTC report

John Brodie

We had a work party a few weeks ago. Thanks to everyone that came out to help: Michael, Kjeld, Steve, Robert, Anton, Stan. We did some cleanup, we scrubbed down the yellow tower, fixed the ropes on the wire antenna. The ropes looked like they may have been cut, but

they are now in a more secure location and harder to reach. Our amplifier has failed under normal use and we will be shipping it back to Texas for repair. One of the reasons we purchased this amplifier was that it is virtually immune to misuse. At this time we believe it was not misused and that it failed during regular service. We are not sure if it will be a warranty repair or not at this time. Steven reminds John/Stan that since he purchased on his credit card he may have some additional insurance should we require it.

JOTA Report

John Brodie

The event is on Sat October 20th at Camp McLean (200th/16th) and a list of volunteers has been started. We still need a few more volunteers. A planning meeting is scheduled for Sunday 2pm at the OTC.

Christmas Party/Luncheon

Jinty Reid

Saturday, December 8th 11am-2pm
Guildford Golf and Country Club
(Opposite Eagle Quest)

The menu will include roast beef and Yorkshire pudding. Drinks will be available individually from your server. A vegetarian dish is available as an option but should be arranged ahead of time. We must know who will be attending by November 30th!

Kjeld moved that we charge \$25 per person and \$30 at the door. Seconded by John Brodie. Passed.

Please pay Scott directly or if you're paying via PayPal be sure to include the note saying it's for the Christmas Luncheon.

Also please RSVP to Jinty's email (jinty.reid@gmail.com) after you've paid to allow her to keep a running count.

Brett Garrett's VE7GM's Estate

Don Hamilton

A letter will be sent to the Surrey, White Rock and ORCA clubs to see if anyone would like to bid on an Elecraft K3 transceiver w/panadapter. Monies will be distributed among the three clubs equally. An iCOM 2820 mobile radio has been donated to SARC on behalf of Brett's estate.

Brett's sisters received the photos John Schouten sent of him working on various projects with the club. They also watched the YouTube video remembering Brett and were extremely thankful. Jinty brought up a discussion point that we may want to show the YouTube video at the year end party to remember Brett. Don Hamilton will ask for permission from Brett's sisters.

<https://ve7sar.blogspot.com/2018/08/remembering-brett-garrett-ve7gm-sk.html>

<https://www.youtube.com/watch?v=k6KmmhzKyR8>

RAC Ham Of The Year

Keith Witney has received the award of Co-recipient RAC Ham of the Year

<https://wp.rac.ca/rac-amateur-of-the-year/>

A big thanks to everyone that helped with the VE100VIMY including many people all across Canada who made it happen.

Equipment Donations and Auction

Sheldon Ward

The first 5 lots of donated equipment will be auctioned this weekend. All auctions will be 1 week starting and ending on Sunday ~5pm.

<https://va7.ca/bids/>

Coffee Break

7:55pm - 8:17pm

Guest presentation: VECTOR

Mike Watkins VE7WV—VECTOR President

VECTOR is the emergency program for the City of Vancouver

Mike presented a talk about the history, activities and relationship VECTOR has with the City of Vancouver. More info can be found here:

<https://vectorradio.ca/> <https://lmerc.ca/about/>

- Approximately 160 members today
- Started in 1998 and we are close to its 20th year
- Average age of members 44 years
- Recruiting via Amateur Radio Course
- Retention by encouraging members to teach blocks
- Use of Radiograms

Meeting Adjourned: 9:36pm

~ Jeremy VE7TMY



November 2018

Operations & Training Centre News

John Brodie VA7XB

This Month... Not Only Pot Went Up In Smoke!



The news this month is not all happy ... we have had a failure of our Expert Linear 1.5 amplifier. It occurred during the CQ WW DX (RTTY) contest on the weekend of Sept. 29-30 when, I am told, the amplifier was idling along at about 500 watts, well short of its full power capability of 1500 watts. The unit has now been returned to the distributor in Texas for diagnosis of the problem and, we hope, replacement or repair under warranty.

The first question that will be asked by members is "was the amplifier operating under some high SWR or other condition that caused it to fail?" We believe the answer is "no" because there is almost no conceivable fault condition which is not protected by alarms and automatic power-down. In fact, the comfort that comes with its reputation as being "bullet proof" was the main reason we spent twice the normal amount for this amplifier rather than opting for a cheaper unit.

Here is what the manual says about protective devices in the amplifier:

The SPE EXPERT 1.5K-FA has a sophisticated protection system that constantly monitors and controls the amplifier's most important parameters.

The main parameters are:

Temperature of the heatsink: max. / min. voltage on the PA; max. PA current; SWR; reflected power; max voltage RF on the tuner; input power.

The protection system is carried out in two different ways:

1. *Through hardware circuits to ensure a minimum intervention time.*
2. *Through software, with a combined action of the two CPU's, to ensure the maximum precision.*

The two results get constantly compared; every difference produces a protection trip and a consequent alarm.

There are three types of protections/alarms:

- a. *SIMPLE This is the most common case. An acoustic warning beep sounds, but no operator intervention is required, as the control system automatically restores the correct operating conditions.*
- b. *SERIOUS When automatic system recovery is not possible (e.g. the temperature climbs over the limits due to obstruction of the fans, SWR is too high, etc.). In this case the amplifier switches back to the standby state and the alarm message gets stored.*

Normally transmission will continue with the exciter only.

- c. *FATAL If the amplifier is in the b) state, but one CPU has a fault or it can't continue operating or some fault appears in the power supply module, then the amplifier will be turned OFF with no further warning. To restart the amplifier, the main switch in the rear panel has to be switched to [O], and then to the [I] position.*



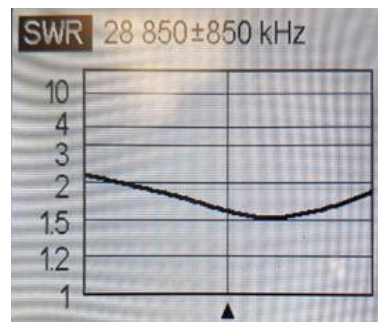
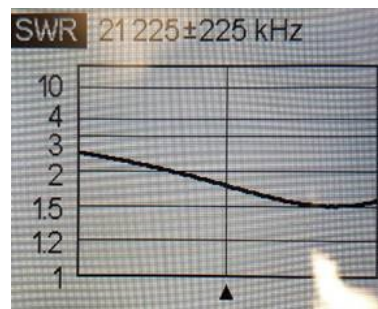
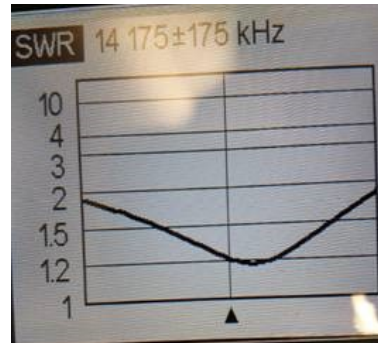
The amplifier had been operated on 20, 40 and 80 m during the contest, but was on 40 m at the time of failure, as confirmed by the log. The SWR of our antennas was checked before the contest and again afterwards, as was the pre-programmed tuning. On the right we show the SWR curves obtained for these bands; all showed acceptable results and well within the range of the amplifier's tuner.

On-going discussions about the use of triplexer, diplexers and bandpass filters for multi-band operation is leading to the conclusion that the best solution, for both low and high power operation, would be the use of separate antennas for each of 40 and 80 m. Ideally we would purchase a 40 m mono-band beam and erect it on a separate tower but, for several reasons this option is not currently feasible (cost being just one reason). Whereas we now make use of a multi-band OCF dipole for the low bands, we might consider restricting the OCF antenna to 80 m, supplemented by erecting a 40 dipole, or possibly 40 m sloper if the layout of trees doesn't lend itself to another high dipole. Food for thought.

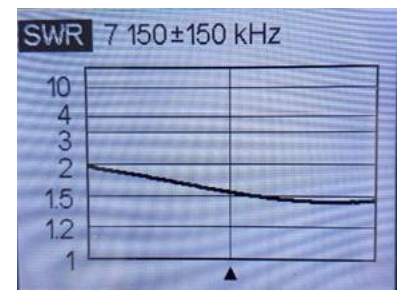
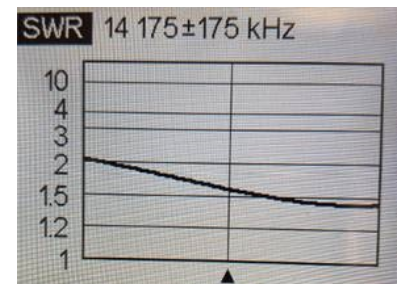
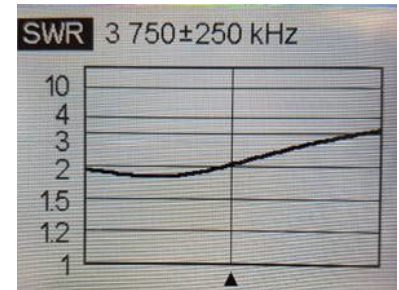
Thanks to Kjeld, Michael, Steve, Robert, Anton, Stan and John B for assisting at the work party in late October, at which time the yellow tower was pressure washed, and the wire antenna was raised after it had fallen due to broken or cut ropes.

~ 73, John VA7XB

The Tri-band Beam



The OCF Dipole



November 2018



Antenna Adventures

Robert Fishwick VA7FMR

Even a Clean Up And Repair Day Can Be Fun

At a recent clean up and repair day at the club site we eventually got around to fixing up the rope attachments in the tall trees for one of the wire antennas at the site.

Eagle eye John Brodie sighted in the tennis ball canon and scored a bulls eye with a perfect placement high up in the tree. The very thin nylon cord attached to the tennis ball was retrieved and the thicker rope was attached. All was ready to haul the rope up over the high branch of the tree. Since the very thin cord that would be used to pull up the thicker cord would slice Turkey on the Christmas table, a person wearing gloves was designated as chief cord hauler, that person being me. I was wearing a pair of gloves with nylon palm protectors so I felt very safe performing the grunt work.



I started to pull in the cord with an overhand motion and initially, I saw the thicker rope disappear up the tree and all was well with the universe. It was quite energizing hauling away on the thin

line, overhand after overhand after overhand. I almost felt that this must have been what it was like on sailing ships of old. Suddenly, I was summoned from the ships deck by a shout of OK, pull away, to which I naturally answered. Yes I am pulling and continued my very energetic overhand pulling. I was beginning to wonder what the fellows at the other end of the rope had been drinking. If they could not see me pulling away like an old sea salt, it must have been something quite potent.

Well, by now you may have guessed that the thin nylon cord, now that some weight was on the other end was sliding over the nylon palm protectors and my efforts were to no avail. It was decided that someone wearing leather gloves would have more purchase in order to complete the job. We all had a good laugh about my efforts, or at least I did. The moral of the story is, I think, the oldest of them all. If you try to use the wrong tools, you may get flogged with a ropes end.

~ Robert VA7FMR

The Contest Contender

John Brodie VA7XB

November Contests



The contesting group is growing! The CQ WW DX SSB contest on Oct. 27-29 will be over by the time this edition of the Communicator arrives in your in-basket however, so far we have 10 members signed up to participate. The majority of participants are relatively new at contesting, and since few are in the “ace” category we consider these events as training not only for Field Day and other contests, but for the more important day when skills need to be deployed in a real emergency. I am very encouraged by this show of interest in putting our newly acquired equipment to work in a fun, competitive event.

I am happy to say that by the time you read this Communicator, we should have our Expert 1.5 kw linear amplifier back in service. I have no details about the repair itself but am told that the suppliers were unable to identify any fault on our part, and the unit is being returned at the cost of shipping.

Personally, I prefer DX contests to all others as there is always the chance of making some rare African or European contact and it just seems more exciting than North American contacts

which can be made any day without effort. For that reason, I suggest that as a club we officially participate in the WAE RTTY and/or the CQ WW DX (CW) contests in November rather than the others.

However, there are many other contests (not listed above) that may appeal to our members. If you would like to operate any contest on your own, as a member you simply need to make arrangements with a one of the Executive to get access to the OTC and confirm correct setup of the radios and antennas beforehand.

Or, perhaps you wish to get some operating experience with the Icom 7610 or the Flex 6600 SDR without the pressure of competing, then you are encouraged to make it known and it will happen. Your Executive wants this equipment to be used.

~ John VA7XB

Here is what is coming up for
SARC contesters in November:

- 3-5 Nov ARRL Sweepstakes – CW
- 10-11 Nov WAE DX Contest – RTTY
- 17-19 Nov ARRL Sweepstakes – SSB
- 24-25 Nov CQ WW DX – CW

November 2018



Radio-Active

Profiles of SARC Members

Don Dangelmeier VA7AB

I was born in Saskatoon on a cold winter's night, February 2, 1936 and came with my parents to Vancouver as a babe in arms. My father was born in Ulm, Germany and immigrated to Canada when he was 22. Mom was born in Saskatoon and came from a Mennonite background. I have one brother Earl, living in Bellingham. During WW2 we grew up in the Marpole area of Vancouver. At the time the area was very rural. We had Chinese vegetable farms off Marine Drive and a dairy farm across the street from our house. There was a large stream a half a block away where the salmon used to come and spawn. The entire rural area is no longer and consists of houses and high rises.

During the war my father worked in the shipyards and because he was fluent in German acted as a spy listener for the RCMP. He was expected to report monthly to their headquarters just off of Oak Street. During these years I still remember the Fraser River flood of 1948 and helping my father as a 12 year old volunteer to fill sand bags.

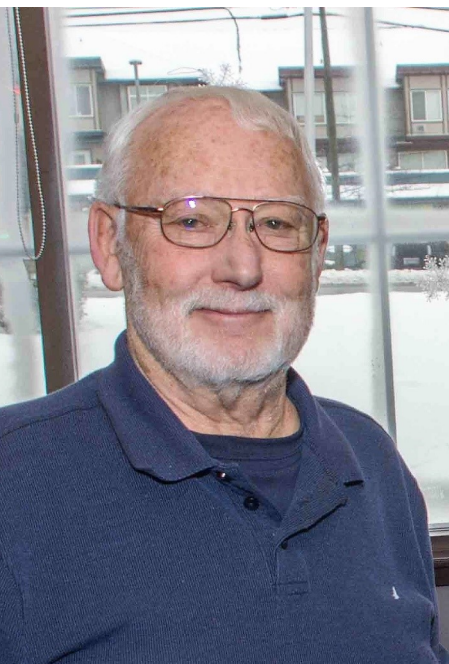
My brother and I attended Sexsmith Elementary School and in those days boys and girls had separate play areas during lunch and recess. Vancouver College came next for High school. In the summer months I worked for BC Forest Service, timber cruising. After graduating from High school I took my first job with a company manufacturing sawmill machinery. About this time I met my future wife, Patricia at a company picnic and a year later we were married. It has

been 61 years since our wedding. Working during the day I spent the evenings travelling to Vancouver Vocational Institute to take up drafting and mechanical engineering. After finishing my courses my title at work was changed from Sales Representative to Sales Engineer.

Nine years later I started a new job, again forestry related, and my wife Patricia and now our four children moved to Prince George, then Smithers, and then 10 years in Edmonton (Sherwood Park). As mentioned before we now have 3 girls and a boy, 3 grandchildren and 3 lovely great-grandchildren. In Sherwood Park our kids had grown up and were either working or had left for a University education. On a bitter cold winter morning I went back into the house and Patricia and I decided to return to the Coast.

In 1980 here in Langley we started our own company (Coast Industrial Supply Ltd). Ten years later we sold it and I began work as a Regional Manager and Sales Engineer for a U.S.A. company which manufactured Robotics (Numatics Inc.) After ten years with Numatics and having travelled all over the Pacific North West and a dozen US states I retired at the age of 67.

Volunteering has always been in both my and Pat's blood. In my case I volunteered as a leader in the Boy Scout movement, the Lower Mainland Crisis Line, Langley Emergency Social Services, Langley Emergency Radio, YMCA and as a Red Cross Swimming Instructor. Patricia



worked with me as an Assistant for both the YMCA and Red Cross swimming classes.

My hobbies have ranged from Amateur Wine Making (since retiring we now purchase our wine and no longer have to put up with the smell of fermenting fruit and carbon dioxide). In our younger years Patricia and I enjoyed snowmobiling and off road motor biking. In our mid-forties both of us became certified Scuba Divers. Later boating (we had a 36 foot trawler) Most of these physical activities we no longer participate in but Ham radio, travelling and cruising have become our major activities. I am still active as a Range Safety Officer for the Langley and Mission Rod and Gun Clubs.

Now that we are older, we spend more time with our great-grandchildren and attend social luncheons and dinners with the family. With regard to a 'bucket' list, my wife has a strong Scottish background and one European country we have not traveled to is Scotland. We would love to take a cruise which featured Scotland and especially its Northern Islands.

I am currently the VP of LARA and also a member a SARC. My wife Patricia (VE7PRD) is currently the Treasurer for LARA.

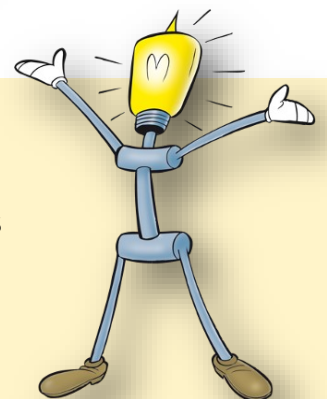
~ John VA7XB



2018 Membership Fees Are Now Past Due

Please note that our new fiscal year is well underway and your annual membership is due if you have not yet renewed. Payment may be made at any monthly meeting, at the Saturday coffee meeting, by mail or via PayPal. Details on payment options are available at our website at: <http://ve7sar.net/join.html>

Anyone still in arrears will be struck from our member roster.



November 2018



Club Auction Site

Members... Start Your Bids



The auction site works like other online auction site



The Surrey Amateur Radio Club has a large number of items that have been donated to the club that are surplus to our needs. As another privilege of membership, we are now going to auction these items off with online auctions that started Sunday, October 14th.

Many members have heard about this at club meeting but below is a summary.

SARC Online Auctions

- All auctions will be one week.
- Auctions start and end on Sundays around 5 PM.
- The first 5 lots are online live now at: <https://va7.ca/bids/> (You must use the complete address otherwise you will get an error.)
- The website now uses HTTPS for security thanks to Roger Andrews VA7VH.
- These auctions are for the benefit of paid club members and as such you must be a paid up SARC member. So if you have not paid your membership now is a good time!
- Please keep in mind these auctions are to support SARC club activities so please don't argue that you missed the closing date, etc.
- To minimize volunteer workload and still reduce the club's inventory the auction will have approximately 5 lots per week. Due to my workload there may be

weeks without any new auctions so don't be surprised if none are listed on the website every week.

- The one week long auction period is designed to give club members ample time to investigate items before placing bids. Like any online auction, bids can not be removed so please think before hitting the bid button!
- It is up to you to do your own research on items. Please do not email me or the directors with questions that you can research on your own online. Questions about setting up your account and bidding may be directed to me at Auction@VE7SAR.net.
- Arrangements can be made with a director to view items in person.
- All items are sold "as is". No guarantees and no returns. It is up to the bidder to determine any risks in buying used equipment BEFORE bidding.
- All lots MUST be paid for in FULL before being given to the buyer. NO EXCEPTIONS.
- Items not sold at auction will be for sale at local ham swap meets.

Account setup

Click on the Register Now link at the top of the page at <https://va7.ca/bids/>

Please setup your account with your call sign as your "user name". Please use all caps. The software requires at

least 6 characters so members with 5 character call signs will need to add an end character such as "- _ !" or if you still have a 6 character call sign you may wish to use that. Setting up your account is easy to do but don't put it off until just before the auction ends and miss out bidding... we can not "fix" the auction results.

How the auctions work

The auction site works like other online auction sites where you put in your current bid and it will go up to that amount for you automatically based on the current high bid.

So if no one has placed a bid and you bid \$10 but the minimum bid is only 99 cents you will get it for 99 cents unless someone else bids.

If the current bid is \$5.00 and you bid \$10.00 it will mark you down as the high bidder at \$5.25. It increments the bids based on a standard bid increment. Under \$10 it is likely 0.25 or 0.50 but over \$10 it might be \$1.00 increments.

It is the same way eBay works its incrementing and you could likely Google that for a better explanation. The thing to keep in mind is that even though it says the current bid is at \$5.00 doesn't mean that is the max bid that that person put in. So if you bid \$6.00 it might come back and say that the current bid is now \$6.50 as the system automatically placed another bid for the other bidder to beat your

bid. This continues until the high bidder's MAX BID is reached. That's why it asks for your max bid. It works like this so bidders don't have to constantly worry about being out bid just before the end of the auction. You may increase your max bid at any time by placing a higher bid even if you are the current high bidder.

If you are still confused about how to place bids you may email me at auction@VE7SAR.net. Bids can NOT be removed so do not place a bid unless you are sure.

Full payment MUST be made at the end of the auction before pick up.

This site is for SARC club auctions only. Please do not try to setup your own auctions.

Roger Andrews VA7VH has kindly provided his web hosting for our auctions and as a result emails from the auction website will appear from his email address. Please thank Roger when you see him as he has put in many hours getting this setup and trouble shooting.

Some auctions may be "exciting" with radios and some may not. The auction lots are in no particular order so please keep an eye on the site.

The next 5 lots will be listed next Sunday. Good luck with your bidding!

~ Sheldon VA7XH



Social Reminders

The Surrey weekly social gathering is on Saturday at the Kalmar Restaurant at 80th and King George Boulevard between 8 and 10:00 am. You don't have to be a SARC member to participate. Bring your significant other, bring your family, see old friends and have fun.

November 2018

Surrey Emergency Program Amateur Radio



The SEPAR Report

Roger Andrews VA7VH - SEPAR Coordinator

The Last AGM and SEPAR Going Forward

September 28 was the SEPARS Annual General Meeting. I wish more of you had attended. This was an important meeting and has implications for the future of SEPARS.

In the few days leading up to the AGM the direction that I thought we were going with the Fire Service and SEPAR, changed somewhat. I had been expecting that the Fire Service would purchase our equipment and we would move forward without the Society. This would have given the City good control of the program. That is what I thought the Fire Service wanted and I think it would still be their preference if not for their budget. It might still be possible in the future.

Surrey Fire Service wants SEPARS to succeed as their emergency communications program in Surrey. They recognize that we are constrained from obtaining gaming funds and so have agreed to remove their 2 directors from the SEPARS board. Rather than having control of the program as board Directors, they will create a memorandum of understanding between us as their sole emergency communications provider, with their desires for the program written into the MOU.

Neither myself nor SFS knows exactly what this will look like. There are lots of details to work out. I have said many times that SFS is committed to supporting the SEPAR program and that has not changed.

A new board of Directors was elected for SEPARS and we will do our best to make

sure this is a first class program for Surrey. Your input is welcomed to help us move forward.

You new board is:

President: Roger VA7VH

VP : Gord VA7GK

Secretary: Jason VA7ITJ

Treasurer: Drew VA7DRW

Directors: Stan VA7NF, Rob VE7CZV and John VE7TI

SEPAR Annual Competition

As of last April, we started a competition that active SEPAR members can participate in. The most active member will win an MD390 DMR Radio package. You can checkout pictures of the radio and see the rules on <http://va7.ca/radio> (an interim website).

If you are not now a member, we'd love to have you on-board. Contact me at the link above.

Weekly Nets

Every Tuesday evening at 1930 hrs (7:30pm PDT) we start a ½ hour NET on a local repeater provided by the Surrey Amateur Radio Club (SARC) on 147.360 MHz +600kHz and a tone of 110.9. There November be a simplex test or a test NTS message transmitted during the NET at the Net controllers discretion. This is an excellent opportunity to practice sending and receiving this form of messaging. Besides, it adds a little spice to the regular check-ins on the net. Please join us. NTS Radiograms can be found on the SEPAR website here, or, if you would like

a fillable PDF that you can enter on your computer, you can get it from here.

Thursday nights at 19:30 hours, This Net has changed! We are no longer doing a regular 2 meter simplex Net on this night. Any plans for Thursday night will be announced on the Tuesday before. This night will now be used for optional tests. For example NTS Digital exchanges, 6 meter, 2 meter 60 cm and 220 Nets. If someone wants to do a particular net on a Thursday, then please announce it on the Tuesday before.

~ Roger VA7VH
SEPAR Coordinator

Amateur Radio Assists During Another Major Disaster

ARRL reports that an array of Amateur Radio public service assets is active, as Hurricane Michael made landfall near Mexico Beach on the Florida Panhandle, boasting devastating 155 MPH winds.

The storm is believed to be the first Category 4 or stronger hurricane to hit the Florida Panhandle, and the National Hurricane Center has been warning of life-threatening storm surge as well as hurricane-force winds and heavy rainfall. See <http://www.arrrl.org/news/amateurradio-assets-active-as-category-4-hurricane-michael-makes-landfall>

In Crystal River, Florida, anxious families who want to check on their relatives in the storm-ravaged Panhandle are having a tough time getting in touch with each other. Phone lines and cell phone service are out in some areas.

Amateur Radio Operators are working to connect people with their loved ones. In a disaster zone only accessible by air, Lee Paulet is reaching Hurricane Michael victims by airwaves and helping first responders communicate, too. "They have no TV, they have no fire, no police, no EMS, they're just done," Paulet says. Hundreds of miles away in Crystal River he's part of a network of "ham radio operators" providing logistical support for emergency crews without communications. "We had a request for several pallets of gasoline fuel and water."

Paulet is also connecting families without cell service who are separated by the storm. He's devoted countless hours of service already, knowing that it could have been *him* in the storm's path, instead. He says, "All that storm had to do was twitch and all that devastation is from here to Tampa Bay," And he says he'll continue around the clock until lines of communication in the Panhandle are back up. More on this on video at: <https://www.wkrn.com/news/ham-radio-operators-connect-emergency-teams-and-families-stranded-by-hurricane-michael/1520707421>

Name	Frequency	Offset	CTCSS
VE7RSC (Primary Repeater)	147.360	+0.600	110.9
VE7RSC (Secondary Repeater)	443.775	+5.0	110.9
VE7RPT (Primary Regional Repeater)	146.940	-0.600	
Optional 136.5 Rcvr			
Simplex 1	(VHF)	146.550	
Simplex 2	(VHF)	147.420	
Simplex 3	(UHF)	446.550	
Simplex 4	(UHF)	447.425	

Other frequencies in the Greater Vancouver area:

Primary: Coquitlam/Abbotsford	146.430
Primary: Inter-Municipal Group 3	146.445
Primary: Vancouver; Mission; Sec. Coquitlam	146.460
Primary: Kent-Mission; Sec. Richmond	146.475
Primary: Inter-Municipal Group 2	146.490
Primary: New West; Sec. Richmond	146.505
National Calling / FM Simplex Group I	146.520
Primary: North Shore; Port Coquitlam	146.535
Primary: Bowen Island; Surrey	146.550
Intermunicipal Group 1 Coordination	146.565
Primary: Lions Bay/Vancouver/Delta/Langley	146.580
Primary: Port Moody; Sec: Burnaby	146.595
Secondary: Vancouver/Surrey	147.420
Secondary: Vancouver (UBC) / Maple Ridge	147.450
Primary: White Rock/Chilliwack; Sec. No. Shore	147.480
Secondary: Burnaby/Pitt Meadows	147.510
Primary: Delta; Sec: Abbotsford	147.540
Primary: Hope; Sec: Delta; ALSO EMBC	147.570



Surrey Emergency Program Amateur Radio

The "Best" Random Wire Antenna Lengths

Jack Clarke, VE3EED (SK)

Random wire lengths you should and should not use

A random wire is exactly that—a piece of wire that's as long as you can possibly make it. One end of the wire attaches to a tree, pole or other support, preferably at a high point. The other end connects to the random-wire connector on a suitable antenna tuner. You apply a little RF and adjust the antenna tuner to achieve the lowest SWR. That's about all there is to it.

Random-wire antennas seem incredibly simple, don't they? The only catch is that your antenna tuner may not be able to find a match on every band. The shorter the wire, the fewer bands you'll be able to use. And did you notice that the random wire connects directly to your antenna tuner? That's right. You're bringing the radiating portion of the antenna right into the room with you. If you're running in the neighborhood of 100W, you could find that your surroundings have become rather hot—RF hot, that is! We're talking about painful "bites" from the metallic portions of your radio, perhaps even a burning sensation when you come in contact with the rig or anything attached to it.

The random wire antenna is probably one of the least expensive, easiest and cheapest HF antennas to use if you have a tuner and you want to get the "most" out of a length of "random" wire without having to pull out that calculator, doing the math, getting the center insulator built or bought, running the feedline, and all the rest that goes with putting up a more elaborate antenna. All you need for a random wire antenna is some wire, your tuner, one or more supports

up as high as you can get them to string the wire from the supports to the tuner, at least one or two insulators and a little time.

One single wire, no solder connections, very simple... all the way from the tuner to the end support. That's it in a nutshell... or is it?

Many hams have tried till they are blue in the face to install the random wire antenna that works on most; if not all of the HF bands with terrible results.

SWR usually is all over the place and the tuner will just not do its job. You can get good loading and low SWR on sometimes 2 or 3 bands, but one or more of the bands that you want, just will not cooperate with an SWR that can be adjusted with the "tuner".

So after much frustration, down it comes and you go on to a totally different type of antenna... all that time just wasted in your opinion... until now!

We recently found some good information about random wire lengths that you should and should not use.

Jack, VE3EED, hopefully has solved a major headache we all have when we attempt to go thru the trial and error and frustration with getting the random wire to work where WE want it to work.

He knew that in order for the tuner to "see" a fairly low SWR to work within its range, that the antenna had to be NOT A HALF WAVE ON ANY FREQUENCY that we wanted to use, because a half wave will give us a very high impedance and the resulting high SWR into a 50 ohm transmitter!



So Jack took most of one day, did the math with the aid of his trusty calculator, several cups of coffee and came up with, in Jack's own words... "Here's the word on random-wire antennae."

Presented for your consideration by Jack, VE3EED, the table represents half wave lengths and multiples that you DO NOT WANT TO USE!

You have to stay away from a half wavelength on any frequency. Therefore, we came up with the following numbers to avoid (IN FEET):

These lengths in the table are the culprits that cause all of the trouble when using random lengths.

So those are the numbers above that we have to stay as far away from as possible when building a long-wire antenna. Here they are in order: 16 19 22 26 32 33 38 44 46 48 52 64 65 66 76 78 80 88 92 95 96 99 104 110 112 114 123 128 130 132 133 138 144 152 154 156 160 165 171 176 182 184 190 192 195 198 208 209 220 224 228 230 231 234 240 242 246 247 256 260 264 266 272 276 285 286 288 297 304 308 312 320 322 323 325 330 336 338 342 352 361 363 364 366 368 369 374 380 384 390 396 399 400 414 416 418 429 432 437 440 442 448 455 456 460 462 464 468 475 480 484 494 495 496.

Some of these numbers are too close to squeeze in between them. Here are the final numbers (in my opinion) in green below that would be good for a long-wire antenna: (You may want to make a note of them)

29 35.5 41 58 71 84 107 119 148 203 347 407 423

REVISION NOTE: James, KB5YN, points out that one of the so-called GOOD numbers was 220 feet. That is the 10th multiple of a half wave on 15 meters. His radio didn't tune up very well on 15 meters. So, having nothing better to do one day, I re-did the calculations going out to 500 feet. That meant calculating all the way to 32 multiples of a half wave on 10 meters. I won't bore you with all that so the first portion of this still only shows up to the 4th multiple. There are so many new frequencies to stay away from, that it gets pretty tricky for the longer wires. However, the list has been revised and is good for wires as long as 500 feet.

~ Jack VE3EED

Frequency MHz	1/2 Wave	2nd Multiple	3rd Multiple	4th Multiple
1.9	246	492	738	984
3.8	123	246	369	492
7.2	65	130	195	260
10.1	46	92	138	184
14.2	33	66	99	132
18.1	26	52	78	104
21.3	22	44	66	88
24.9	19	38	57	

Mike AB3AP wrote a small C program that does just what Jack did, but used the band edges. Because he's more visually oriented, he then plotted the many overlapping "red zones" and ended up with the page at:

<http://udel.edu/~mm/ham/randomWire/>

He plotted the results for the U.S. CW band edges for use with his 4 band Elecraft K1 QRP rig.

You will note that when comparing Mike's results with VE3EED that some of the results are a bit different.

November 2018



KB6NU's Column

Dan Romanchik, KB6NU

Did the FCC just make Baofengs illegal? ***Short answer: NO!***

Is the UV-5R now illegal?

Last month, the FCC published Enforcement Advisory, No. 2018-03. It begins:

"The Enforcement Bureau (Bureau) of the Federal Communications Commission (FCC) has observed that a growing number of conventional retailers and websites advertise and sell low-cost, two-way VHF/UHF radios that do not comply with the FCC's rules. Such devices are used primarily for short-distance, two-way voice communications and are frequently imported into the United States. These radios must be authorized by the FCC prior to being imported, advertised, sold, or operated in the United States.

Many of these radios violate one or more FCC technical requirements. For example, some can be modified to transmit on public safety and other land mobile channels for which they are not authorized, while others are capable of prohibited wideband operations. Such radios are illegal, and many have the potential to negatively affect public safety, aviation, and other operations by Federal, state, and local agencies, as well as private users. Because these devices must be, but have not been, authorized by the FCC, the devices may not be imported into the United States, retailers may not advertise or sell them, and no one may use them. Rather, these devices may only be imported, advertised, sold, or used only if the FCC first has approved them under its equipment authorization process (or unless the devices operate exclusively on frequencies reserved for amateur licensees or they are intended for use exclusively by the federal government). Moreover, with

only very limited exceptions, after being authorized, the devices may not be modified. Anyone importing, advertising or selling such noncompliant devices should stop immediately, and anyone owning such devices should not use them. Violators may be subject to substantial monetary penalties."

This advisory seems aimed squarely at radios, such as the Baofeng UV-5R and other inexpensive Chinese radios, and a lot of hams are worried that a) they won't be able to get cheap Chinese radios anymore, and b) the radios that they currently have are now illegal.

Fortunately, that's not the case. Having done some work for BTECH, a company that sells a lot of Baofeng radios, I asked them how they read this enforcement advisory. What they said is that what is illegal is selling radios without FCC certification or selling radios "outside of their designed use." The example they gave me would be selling a UV-5R for FRS use.

This morning, on reddit, Noji, KN0JI, posted the text of an email exchange that he had with Scott Stone, Deputy Chief, Mobility Division of the FCC's Wireless Telecommunications Bureau. Noji asked,

Does Part 95. 591 mean that all Baofeng UV-5R and UV-92 radios (which can transmit [on] FRS and GMRS frequencies) will become illegal to buy or sell in the U.S. after September 2019, even for amateur use?

To which, Stone replied,

No. Those devices do not have Part 95 certification, so they are not authorized for use in FRS or GMRS. i.e. they are not capable



of operating under this subpart. They can be used by amateurs, but only on amateur frequencies.

So, there you have it. If you're ever in Ann Arbor, MI, give me a call on the W8UM repeater (145.23-, 100 Hz PL), and I'll (legally) answer with one of my Baofengs.

UPDATE 9/28/18: I should have listened to Bob, K0NR, who, in his comment says, "This story is far from over." Apparently so. See FCC Back pedals – All transceivers capable of transmitting on frequencies that require certification must be certified and can not be used on Amateur radio for more info. It may just be that the FCC does consider these radios to be illegal for use on amateur radio frequencies. Frankly, this discussion is over my head. I guess that we'll see how concerned we have to be when the FCC starts shutting down companies selling these radios or actually confiscating them from hams.

It seems to me that the manufacturers could sidestep all this legal turmoil by simply producing service-specific models that are programmed to transmit only on those frequencies of that particular service. The hardware needn't change, just the software.

UPDATE 10/3/18:

The ARRL has now gotten involved in this discussion. Their position is that these radios are legal for amateur radio use. I expect the FCC to issue another clarification at some point stating this.

~ Dan KB6NU
Reprinted with permission

When he's not trying to figure out which way current flows, Dan blogs about amateur radio at KB6NU.com, teaches ham radio classes, and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him at cwgeek@kb6nu.com.

And In Canada?

There has been more discussion about the legality of using BaoFeng portables radios illegal in the U.S.A. because they were not type-approved. See above and <http://qrznow.com/fcc-enforcement-advisory-targets-noncompliant-imported-vhfuhftransceivers/>.

Halden Field VE7UTS advised that this may not be true, as the ARRL now suggests that the statement referred to the illegal use of these portables only when used on commercial bands. (They can be easily re-tuned to non-Ham frequencies.) See <http://www.arrl.org/news/arrl-fcc-discussing-issue-of-uncertified-imported-vhfuhftransceivers>.

From a Canadian perspective, Ed Frazer VE7EF advises that ISED is not as involved as FCC as to what goes on in the ham bands provided regulations are followed. Ham operations in Canada are covered by the following documents:

- RIC-3: Information on the amateur radio service, Issue 4, December 2016

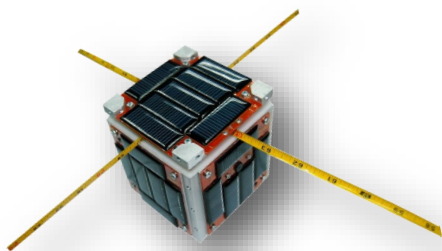
- RBR-4: Standards for the operation of radio stations in the amateur radio service (formerly RIC-2), Issue 2, January 2014. The above can be downloaded from http://www.ic.gc.ca/eic/site/025.nsf/eng/h_00007.html

The official Canadian view is at <http://mrarc.net/wpcontent/uploads/2018/10/Warning-Letter-Illicit-Amateur-Radios-Template.pdf>

The short answer is, there's nothing illegal about using them in Canada on the Ham bands. The issue is basically an American one, see <https://docs.fcc.gov/public/attachments/DA-18-956A1.pdf> or, a video that explains it all, <https://youtu.be/aRNMiK3w4k4>

~ Thanks to NSARC For the additional information

November 2018



Satellite News

Patrick Stoddard WD9EWK/VA7EWK

Ham Talk Live: Portable Satellite Operation

In Episode 135 of the Ham Talk Live! show Patrick Stoddard WD9EWK/VA7EWK answered questions about operating amateur radio satellites on the road. Patrick has logged thousands of miles on his portable gear, and gave some tips and some interesting stories from his adventures.

Listen to the show at:

<https://www.youtube.com/watch?v=ddLhk58ehBM>

Updated Ham Radio Satellite List

Mineo Wakita JE9PEL has made available a table of all amateur radio satellites in Word and Spreadsheet formats.

Also available is a Doppler.sqf file for use in the SatPC32 satellite tracking software.

JE9PEL satellite list

<http://www.ne.jp/asahi/hamradio/je9pel/satlist.htm>

Satellite Frequency List Update

<http://www.ne.jp/asahi/hamradio/je9pel/satlist.htm>

Chinese Moon Sat Sends Photos

Ham radio operators bouncing signals off the moon have become old hat. But a ham radio transmitter on the Chinese Longjiang-2 satellite is orbiting the moon and has sent back pictures of the Earth and the dark side of the moon. The transceiver's main purpose is to allow hams to downlink telemetry and relay messages via lunar orbit.

While the photo was received by the Dwingeloo radio telescope, reports are that other hams also picked up the signal. The entire affair has drawn in hams around the world. Some of the communications use a modulation scheme devised by [Joe Taylor, K1JT] who also happens to be a recipient of a Nobel prize for his work with pulsars. The Dwingeloo telescope has several ham radio operators including [PA3FXB] and [PE1CHQ].

You can find technical particulars about the satellite on its web page. There are also GNU Radio receivers and information about

tracking. If you want to listen in, you'll need some gear, but it looks very doable. The same page details several successful ham radio stations including those from [PY2SDR], [CD3NDC], [PY4ZBZ], [N6RFM], and many others. While the Dwingeloo telescope is a 25-meter dish, most of the stations have more conventional looking Yagi or helical antennas.

If your Mandarin is up to it, there is live telemetry on that page, too. You might have more luck with the pictures.

For working conventional satellites, you often need an agile antenna. We suspect the lunar orbiting satellite appears to move less, but you'll have other problems with more noise and weak signals. Although hams have been bouncing signals off the moon for decades, they've only recently started bouncing them off airplanes.

~ Hackaday.com

OTHER HAM



NSARC Repeater Status

The NSARC Repeater system originally consisted of a VHF repeater on Mount Seymour, VE7RNS, a second VHF one on Bowen Island, VE7RHB and a hub/UHF repeater, VE7NSR, that allowed us to simulcast. This system provided seamless operation from North of Squamish to Chilliwack, the Sunshine Coast as well as South-East Vancouver Island.

As you probably know by now, we lost access to the site on Mount Seymour about two years ago when our repeater went silent. As a result, we operated only the Bowen Island repeater along with the UHF hub. The coverage provided by the only VHF repeater on Bowen Island was not adequate for our Club members' needs and therefore we switched to a backup, stand-alone repeater on the Fromme Ridge in North Vancouver, VE7RNV. However, as the Bowen Island repeater and the hub system would still operate, we manually disabled them for the VHF repeater not to interfere with VE7RNV, both on 147.26MHz.

Most recently, our Bowen Island site was decommissioned and will not be of any further use to us in the future. We were therefore able to re-enable the UHF/hub repeater, VE7NSR, on 442.300 MHz+ as a stand-alone repeater. It is open and available, it is located at the top of the Gerry Brewer Building and has reasonable coverage on the North Shore and the western portion of Greater Vancouver. At this time, some signals received on 147.86 MHz (the VHF repeater input) are also heard on the output of the UHF repeater. This is a temporary situation that will hopefully be resolved soon. To sum up: we now have two operational repeaters: VE7RNV on 147.260 MHz+ located on the Fromme Ridge (North of the power line, above the top of St. Georges Avenue) and a UHF repeater, VE7NSR on 443.200 MHz+ in downtown North Vancouver. NSARC also operates a wide-coverage UHF repeater on 444.950 MHz+. It is currently off the air.

And, from the 'as if we didn't already know department...'

Canada's cellphone system vulnerable in disasters, say experts

Advocates are calling for the federal government to examine the reliability of Canada's cellphone services during emergencies after tornadoes swept through the Ottawa area last week leaving thousands with little or no cellphone service. See the CBC story at: <https://www.cbc.ca/news/politics/cellphones-emergencies-batteries-tornado-1.4844158>



Hosted by
Richmond Amateur Radio Club

Presentations and discussions on
Amateur radio topics of interest
for the curious general public

LOCATION:
Steveston Community Centre
4111 Moncton Street
Richmond, BC

TIME: 9 AM to 4 PM
FEE: \$5 per person
Coffee and beverages
Free parking available

SEMINAR TOPICS:
(To be confirmed and finalized)
Choosing Your First Radio
Amateur Radio Direction Finding (ARDF)
Automatic Packet Reporting System (APRS)
Summit on the Air (SOTA)
Digital Radio (D-STAR, DMR, Fusion)
VoxBox and Slow Scan TV (SSTV)
DX-ing and DX-peditions
VE100VIMY Special Event Station
Emergency Communication Programs
Amateur Radio for Personal Preparedness
Designing an Emergency Radio Go-kit

SEMINAR SCHEDULE:
www.richmondarc.ca

INFO & REGISTRATION:
info@richmondarc.ca

Door prizes provided by:

**central
Radioworld**

November 2018



Is Having A Party!

...and you're invited



How often has a member said that they would like to participate in a QSO party, but cannot do HF at their QTH? Here is a way they can join us, on 2m!

Nov 17th 2018, Saturday, from 10:00-14:00 PST, let's have a Party on 2m. Use a simplex frequency between 146.415 and 147.570 MHz, with PL 67.0 Hz to make as many contacts as possible. The reason for the PL, is to give operators a reason to use VFO mode, to learn some more features of their radio (Generic instructions provided below).

Contest is open to all certified amateurs. Each QSO must have one station within southwest BC, northwest WA. to be considered for points. (Updated 20/10 14:00)

- Radios will be classified by power as QRP (10w or less), LOW (11-49w), HIGH (>50w)
- Points will be given for the correct exchange of Callsign, Power class, Municipality.
- Stations may be MOBILE (calling from multiple Municipalities), or FIXED (one Municipality).

Each station worked is worth one point. A Fixed station may be worked only once, while a Mobile station may be worked more than once if it has moved to a different Municipality. 10 bonus points for each municipality that you work. 10 bonus points for each municipality your transmit from. (Shhhhhh, your first contact is worth 21 points (10+10+1 points).

Valid operating frequencies include 146.415, 146.430, 146.445, 146.460, 146.475, 146.490, 146.505, 146.535, 146.550, 146.565, 146.580, 146.595, 147.420, 147.450, 147.480, 147.510, 147.540, 147.570 MHz
(ref: <https://wp.rac.ca/144-mhz-2m-page/>)

Electronic log files to be submitted in XLS or gsheets format to qsoparty@vectorradio.ca by Nov 30, to be included in the scoring. No prizes will be awarded, but lots of admiration from your peers.

For further information, contact qsoparty@vectorradio.ca or look thru the info directory https://drive.google.com/open?id=1ki0Y_q0PpisrDkqXQk0HnPoviQvzMro

Club Items for Sale To Members

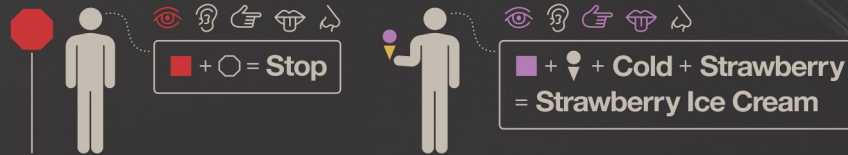
The club has purchased 3 different styles of type 31 ferrite cores which have been used for RFI/common mode current suppression at the OTC. Unused cores will be available for purchase by members at cost as follows.

These are all Type 31 material, all \$CDN with local pickup; the prices are:

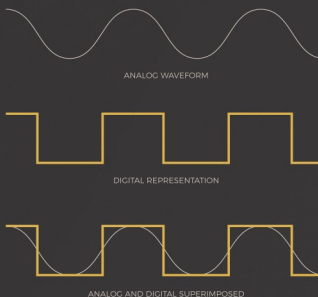
- Solid beads 25.9 OD, 12.8 ID, 28.6 long (Fits over RG8 type coax) \$2.25
- Split core/snap on size as above \$4.00
- Large diameter 61.0 x 35.6 x 12.7 (5 turns RG8 with connector) \$7.25

Analog and Digital Signals

HUMAN BEINGS are programmed to perceive an analog world. Our biological sensors record a constant, complex barrage that our brains combine and convert into understandable and useful information.



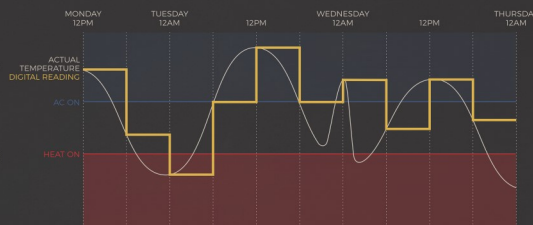
AS TECHNOLOGY HAS EVOLVED, we've created ways to interact with the world that makes our lives a bit easier. First, we created systems that respond to the analog world in real time, making mechanical devices and circuitry that effectively balance a stimulus with a response - like the float in your toilet tank that keeps it full, or a thermostat that uses two dissimilar metals with different expansion rates to give you responses over a range of temperatures. With the advent of the digital age, we've had to find ways of importing that analog information into our digital control systems. This is the process of digitization.



TO DIGITIZE AN ANALOG SIGNAL, we take a number of discrete measurements (samples) at regular intervals of time and store their values. Once the signal is in digital form, we can analyze its behavior and determine an appropriate response. The advantage of this over an analog system is substantial, because we can use software to very easily do our data manipulation and set any number of conditional thresholds and responses, rather than developing a complicated and often finicky electronic circuit to accomplish the same. Doing complicated math in software is a walk in the park compared to trying to reproduce similar results in circuitry, since precision component values can be expensive and inaccurate.

DIGITAL SYSTEMS ARE NOT WITHOUT SHORTCOMINGS.

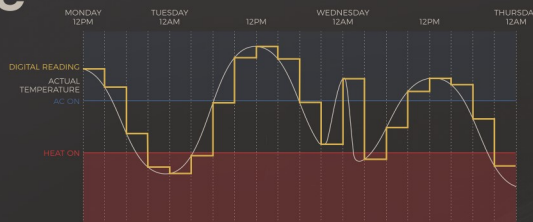
Getting a good digital representation of the original signal is paramount. Analyzing something like the temperature in a room and responding with AC or heat is a relatively simple endeavor because the signal changes so slowly. But higher-speed signals can be much more complicated to accurately replicate - there is inherent inaccuracy in our measurements. While we can determine a very precise time at which a measurement is taken, we don't know for certain what happened between samples. More than that, our measurements of magnitude also take on discrete values in digital form, values in between which we can't see.



IN THIS EXAMPLE, the sensor is taking heat readings every six hours. We see that while the digital readings generally follow the curve of the actual temperature, it doesn't always get it quite right and sometimes misses important details, like the unexpected spike in heat on Wednesday morning.

The Nyquist Rate

TO COMBAT THE ISSUE of what happens between samples, we take more samples so that there's less time between. In fact, it turns out that you have to take (at least) twice as many samples per second as the highest frequency of interest. This is known as the Nyquist rate, named for Harry Nyquist. For example, if you're trying to sample an FM radio signal centered at 97.3MHz, you would need to sample twice that, plus the bandwidth of the modulated signal, or around 195.4MHz.



HERE WE'VE TAKEN THE SAME TEMPERATURE DATA, but doubled the sample rate of the digital sensor, resulting in much more accurate heating and cooling and hopefully, a more comfortable home.

Magnitude Granularity

TO COMBAT THE ISSUE of magnitude granularity, our measurements are represented by more bits. For example, if we sample a voltage between 0 and 5 volts and represent it with a 10-bit number, our 5-volt range is split into 2^{10} (1,024) chunks. That makes the variance between sample levels $5V/1024 = 4.88mV$. If we increase our number to 12 bits, our 5V range is split into 2^{12} (4,096) chunks. That brings our variance between sample levels down to $5V/4096 = 1.22mV$.

Learn More

KEEP GOING! If you want to learn more about analog and digital signals and how to use them appropriately in your next project, you can find plenty of tutorials and guides at learn.sparkfun.com.



November 2018



In Canada...

Ham Radio Numbers Are Dwindling



ham radio probably isn't the first form of communication a person thinks about in an emergency, but sometimes, it's the only one that works

CBC News interviewed Mike Johnson VE1MWJ who is trying to drum up enthusiasm for ham radio, "our numbers are dwindling" he says

A ham radio probably isn't the first form of communication a person thinks about in an emergency, but sometimes, it's the only one that works.

Ham radios can use wireless transmission to send messages to battery-operated radios. And they can be useful when large storms knock out telecommunications, says Mike Johnson, the Cumberland Regional Emergency Management coordinator.

He is partnering up with EOS Eco-Energy and the WestCumb Amateur Radio Club to hold a free workshop in Sackville to try get more people interested in ham radios.

Storms that knock out telecommunications for long periods of time create more problems for coordinated emergency response, he said.

He said he's already seen how ham radios could help in New Brunswick.

In January 2017, a massive ice storm knocked out power to thousands in the northeast for days. "It became very difficult," said Johnson.

Today, ham radios are considered a hobby more than a necessity, and not many people know how they work.

"Our numbers are dwindling," Johnson said of the amateur radio clubs.

But younger members are needed, especially since the clubs' services may be needed even more as the climate changes. "We still use Morse code to this day," he said.

Read the full CBC article at:

<https://www.cbc.ca/news/canada/new-brunswick/ham-radio-workshop-sackville-1.4859729>



The Radio Amateurs of Canada (RAC) magazine 'The Canadian Amateur' (TCA) September-October issue is now available to members on-line. For membership information, please visit: wp.rac.ca

Precision Time Keeping

In the 1950s, atomic clocks revolutionized precision time-keeping. Now we may be on the verge of so-called "atomic radio," thanks to the development of a new type of antenna capable of receiving signals across a much wider range of frequencies (more than four octaves) that is highly resistant to electromagnetic interference.

An antenna is typically a collection of metal rods that pick up passing radio waves and convert their energy into an electrical current, which is then amplified. One might argue that the good old-fashioned radio antenna has served us well since the dawn of the 20th century, so why do we need anything to replace it?



According to David Anderson of Rydberg Technologies, those antennae are wavelength-dependent, so their size depends on whatever wavelength of signal they are trying to measure (they need to be about half the size of whatever wavelength they are designed to receive). That means you need antennae of several different sizes to measure different radio frequencies.

Anderson is a co-author of a new paper posted to the arXiv describing a novel alternative to conventional antennae, based on vapor cells filled with a gas of so-called "Rydberg atoms." That just means the atoms are in an especially excited state, well above their ground (lowest-energy) state. This makes them especially sensitive to passing electric fields, like the alternating fields of radio waves. All you need is a means of detecting those interactions to turn them into quantum sensors.

"You can design the receiver to operate at whatever frequencies you want and avoid intentional electromagnetic interference much more easily."

https://arstechnica.com/science/2018/09/a-new-antenna-using-single-atoms-could-usher-in-the-age-of-atomic-radio/?utm_source=amateur-radio-weekly&utm_medium=email&utm_campaign=newsletter

~ Ars Technica

Here's A Tip For Contesters

This tip is for both novice and advanced, wanting to improve their skills. The ARRL has a semi-monthly newsletter called "The ARRL Contest Update" with all kinds of contest related tips.

The current issue includes a link to <http://ku7t.org/automate-starting-and-exiting-multiple-programs/> which shows you how to set up a profile for any particular contest which will, at the touch of a button, load all the programs required for the contest and in the right order. e.g. N1MM+, N1MMrotor.exe, (I think that's the right name), VE7CC, DXAtlas, VOACap, Ionoprobe, Athena, etc. Could also be very useful for managing the Club station.

Among several other articles is one on "How to Adapt your DX Contest Strategies for Low Solar Activity"

There is also lots of general contesting news.

The ARRL Contest Update is published every other Wednesday (26 times each year). ARRL members may subscribe at no cost or unsubscribe by editing their Member Data Page as described at <http://www.arrl.org/contests/update/>.

Another good reason to be an ARRL member

~ Jim VE7FO

War on the Short Waves

This 1941 book by Harold N. Graves, Jr. is now available for free download in electronic format: War on the Short Waves

Contents

- I. Round the World on the Air Waves
- II. The Story of International Broadcasting
- III. Weapons in the Radio Armory
- IV. The Tragedy of Paris-Mondial
- V. The Nazis Tell the World
- VI. The Axis Junior Partner
- VII. The Soviet Enigma
- VIII. The BBC Takes up the Cudgels
- IX. What Is the Radio Weapon Worth?

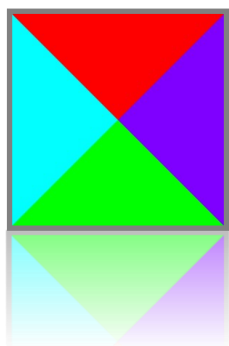
Direct link to PDF file

<https://archive.org/download/WarOnTheShortWave/WarOnTheShortWave.pdf>

EPUB and Kindle formats at

<https://archive.org/details/WarOnTheShortWave>

November 2018



Foundations Of Amateur Radio

Onno Benschop VK6FLAB

Episode 175: Everything you know about dipole (calculators) is wrong...

The other day I did an experiment. I searched for ""dipole calculator"" and using the first 20 results I calculated the length of a dipole suitable for 7.130 MHz. I chose the frequency for no other reason than there is a 7130 DX net every Monday, Wednesday and Friday and for the longest time I've been unable to participate due to the lack of a HF antenna in my new shack.

So here's some things I learnt from doing this experiment.

Depending on which calculator I use, the length of my dipole can vary by over a meter from longest to shortest result.

Depending on my desire to use metric or imperial measurements, my dipole will be a different length, because of course electrons move at a different speed if you're not using the metric system.

In case you're wondering, 1 inch is defined as being exactly 2.54 cm, so there's plenty of opportunity to vary that.

Speaking of standards, we all agree that the speed of light is a constant, right? Turns out that for some calculators, you can change the speed of light.

I'll skip over the notion that none of the calculators actually show what they're using as the speed of light and move on to other interesting discoveries.

Apparently you can determine the length of a dipole down to the sub-atomic

length, with one calculator going down to the size of an electron to indicate how much wire you should cut from a spool.

There are forms that make doing the calculation really easy, single box to type in the frequency, so the answer must be right.

There are some that use random standard numbers, even a text book example that uses some number, but no indication where it comes from. For example, the number 486 features regularly, but so does 150 and 5905.

There are forms that provide you with several boxes, but no indication which box needs what value, so your answer may or may not indicate the number of eggs per chicken per parsec.

One dipole calculator result is actually for a vertical, so your search engine helping you might not actually give you the calculator you expect.

There are percentage correction factors. 5% seems to be a favourite number, but no indication as to what the origin of that number is.

There's a calculator that allows you to specify the feed point impedance, not sure how that works, but it's a nice feature to have when you're calculating the length of your dipole. Not.

One regular instruction is to cut long, that is, measure your wire and cut it longer than the calculator states. How

To listen to the podcast, visit the website: <http://podcasts.itmaze.com.au/foundations/> and scroll to the bottom for the latest episode. You can also use your podcast tool of choice and search for my callsign, VK6FLAB.

All podcast transcripts are collated and edited in an annual volume which you can find by searching for my callsign on your local Amazon store, or visit my author page: <http://amazon.com/author/owh>.

Foundations of Amateur Radio Volume 7 is out now - with chapters on digital modes, coax connector loss, waterfalls, station performance and more.

Feel free to get in touch directly via email: onno@itmaze.com.au, or follow on twitter: @vk6flab (<http://twitter.com/vk6flab/>)

If you'd like to join a weekly net for new and returning amateurs, check out the details at <http://ftroop.vk6.net>, the net runs every week on Saturday, from 00:00 to 01:00 UTC on Echolink, IRLP, AllStar Link and 2m FM via various repeaters.

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onno@itmaze.com.au

much longer is left as an exercise to the reader. Should it be 1 mm longer, 1 cm longer, or should it be 1 m longer and how much should that change if the frequency changes?

Let's move on. The word ground features heavily in these calculators. The phrase "average ground" does too. No indication as to what makes an average ground, or how to go about determining what changes if your ground isn't average.

We all agree that the dipole should be half a wave-length above the ground, right?

How much is that?

The same wave length as the length of the dipole we've just calculated, or a different one?

How does the length of the dipole vary if the height varies? While we're looking at variation, how much variation is there depending on how thick the wire you're using is and what about insulation? None of those things are even mentioned in any of these calculators.

Dipole calculators, wonderful invention, shame about the implementation.

~ I'm Onno VK6FLAB



SARC Christmas Luncheon



You are cordially invited to join us on Saturday the 8th of December at the Guildford Golf & Country Club at 7929 152 Street, Surrey (look for the sign LINKS) from 11 am until 2 pm to enjoy our Christmas luncheon of roast beef, Yorkshire pudding and all the trimmings. Alcoholic beverages will be available for purchase. We extend the invitation to the Langley and White Rock Clubs and SEPAR. Awards, door prizes and entertainment will be part of the event. Cost: \$ 25 per person. Payment after 30th November will be \$30.

Please pay in advance if possible by Pay Pal at www.ve7sar.net (identify it is for Christmas event), cheque or cash to Scott Hawrelak our treasurer.

Please RSVP to jinty.reid@gmail by 30th November.

November 2018



Hams At War

Amateur Radio's Role In Secret Wireless Intelligence During World War II

On this Canadian Remembrance Day, November 11th, we pay tribute to the thousands of Amateurs who served in the Armed Services, and those behind the scenes.

The Beginnings

When war broke out in September 1939, amateur radio stations were closed down and amateur radio enthusiasts - "hams" - had to hand in their transmitters, remove and pack all valves, prepare an inventory of their apparatus and obtain a receipt. However, they were allowed to keep their shortwave radio receivers.

In 1939, many "hams" were called up into the RAF Civilian Wireless Reserve - later the RAF Volunteer Reserve - the Territorial Army Signals Unit and the Royal Navy Volunteer (Wireless) Reserve. In those days, in order to obtain a licence to operate, radio amateurs had to show proficiency in Morse code, and this made them especially valuable to the new organizations being set up by British Intelligence which involved secret wireless monitoring. The information they fed to Bletchley Park provided much of the raw material required to break into enemy codes and cyphers.

In addition, radio amateurs, many of whom possessed considerable technical skills, played a key role in technological developments such as counter-measures against enemy air attacks, in the defeat of the magnetic mine, developing ultra-high frequencies and as instructors at the top-secret radio and radar schools.

More than 1,500 amateurs, widely distributed over the UK, intercepted weak and fading signals to reveal the innermost secrets of the enemy intelligence services. This knowledge enabled the allies to plan deception methods (mainly through double-cross agents) which were vital in various military campaigns, especially in the invasion of Normandy.

Radio Security Service (RSS)

Originally called the Illicit Wireless Intercept Organization, the Radio Security Service (RSS) became a part of Military Intelligence known as MI8(C), but in May 1941 it was transferred to the Secret Intelligence Service (MI6). Its first premises were in C Block at Wormwood Scrubs prison in London, from which the prisoners had been removed. It was at a meeting in one of the cells that Arthur Watts, President of the Radio Society of Great Britain (RSGB), the official "hams" organization, agreed to put the Society behind the recruitment of amateur radio operators into the fledgling RSS. There was also a direct teleprinter link from the prison to Bletchley Park. In late 1940, the RSS moved to Arkley, north of Barnet on the outskirts of north London, with a postal address "Box 25 Barnet".

The original aim was to listen out for illicit wireless activity within the UK, but most of these agents were quickly tracked down and the spies either executed or "turned" by the "Double Cross" organization. From March 1940, the RSS took on a wider role, covering communications of the Abwehr (German military intelligence) and associated enemy intelligence.

The incoming log sheets were examined, identified as to group and service (there were several hundred different links), investigate suspect transmissions to ascertain they were Abwehr (German military intelligence) and if so, which group. The RSS also controlled D/F, training operators, testing same, interception and traffic analysis.

The Official History, British Intelligence in the Second World War, says Bletchley Park decrypted RSS 268,000 messages. The Official History also states that, at its peak, the RSS employed 2,094 people, of whom 1,317 were operators.

Voluntary Interceptors (VIs)

Radio amateurs recruited into the RSS were known as Voluntary Interceptors (VIs). "Hams" were particularly adept at reading weak Morse signals, caused by interference from background noise or other nearby signals. In the early years of the war, radio amateurs were recruited into nine regions with a Captain from the Royal Signals as Regional Controller. Many amateurs who were also members of the RSGB received a letter asking them to volunteer as "listeners".

VIs were given a reference number, some blank log sheets, postage stamps and envelopes addressed to "Box 25, Barnet, Herts". VIs placed their completed logs inside a stamped addressed envelope which was then inserted into another addressed envelope to Box 25. VIs were often given particular frequency bands to search for signals using a certain type of procedure, and sometimes were asked to listen out for particular call-signs and to take down any messages which appeared in coded groups of five letters - the standard method of transmitting secret military information by Morse.

Frequencies most used were between 3 MHz and 12 MHz, with the concentration from 4 MHz to 9 MHz. Much of this band was occupied by broadcast stations and Morse used by the Services and the press. But with some 5-6 million cycles of band, in which a Morse signal only required a one-thousand cycle space, in theory there could be 3,000 stations - excluding that used by broadcasters - which could be operating simultaneously, hence the need for a nationwide team of VIs.

"Double Cross" System

So named after the organization which ran it, called the Twenty Committee (20 in Roman numerals is XX - a double cross). It handled enemy agents "turned" by MI5, whose "minders" were often radio amateurs, whose knowledge of Morse enabled them to keep track of what the "turned" agent was sending back to Germany.

Special Communications Units

These SCUs, as they were known, also recruited heavily from radio amateurs, and their role was to provide the information, called "ULTRA", gained from Bletchley Park's breaking

of Enigma codes, to military commanders in the field. They were attached to military units in the various war theatres, but only a handful of senior officers knew the real source of the information which they provided, as the origin was disguised.

Direction Finding

Radio "Hams" were also recruited to the extremely valuable work of direction finding - or "DF-ing" - by which enemy signals could be traced to their origin, providing vital information on the whereabouts of an enemy unit and even the position of a U-boat at sea.

German Military Intelligence—The Abwehr

The RSS listened to radio communications of the various German security services. Below is a typical Radio Security Service Voluntary Interceptor log filled in by a radio amateur.

~ Source: *The Secret Wireless War: The Story of MI6 Communications, 1939-1945*, by Geoffrey Pidgeon, Published by UPSO, 2003. ISBN 1-84375-252-2

A log sheet of 9th December 1941 made out by RSS VI and radio amateur Bob King (amateur call-sign G3ASE), showing Abwehr [military intelligence] group "Bertie" (for Berlin). All German groups were given code names starting with the same letter as the base, i.e., "Violet" for Vienna, "Bertie" for Berlin etc.

November 2018

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[president @ ve7sar.net](mailto:president@ve7sar.net)

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[vicepresident @ ve7sar.net](mailto:vicepresident@ve7sar.net)

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[treasurer @ ve7sar.net](mailto:treasurer@ve7sar.net)

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John Schouten VE7TI
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[communicator @ ve7sar.net](mailto:communicator@ve7sar.net)

Robert Fishwick VA7FMR
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Anton James VE76SSD

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MEMBERSHIP

John Brodie VA7XB
[membership @ ve7sar.net](mailto:membership@ve7sar.net)

CONTEST MANAGER

John Brodie VA7XB
[vicepresident @ ve7sar.net](mailto:vicepresident@ve7sar.net)

SARC QSL MANAGER

Heinz Buhrig VA7AQ
15684 102 Avenue
Surrey, BC V4N 2G4

SARC REPEATER MANAGER

[repeater @ ve7sar.net](mailto:repeater@ve7sar.net)



Onno Benschop VK6FLAB

Celebrate Accomplishments

Mistakes are common in all aspects of life. Sometimes they are only known to you, other times they are public knowledge and open to ridicule and lambasting. Getting on air for the first time is an accomplishment and often the initial source of mistakes, mishaps and great frustration. Once you've made it on air, the reception to this feat is often underwhelming, people around you don't appear to appreciate the amount of effort you went to in order to key your microphone and for others to be able to hear that.

If you've been in this community for a while it's easy to forget what is involved to make that first contact and to dismiss those around you who've managed to obtain their license, acquire their equipment, install and configure it just so and to actually achieve the first visible milestone in their amateur radio journey, though technically it's audible.

If you've never done this, or if you have but have delegated it to the historical backwaters of your mind, here's an outline of some steps and mistakes along the path of making your first contact.

The first question you're likely to ask is, which radio followed quickly by, from where? Then, if you're like me and many other starting amateurs, you'll have set up your radio for operation on the local 2m or 70cm repeater, you're likely to have some kind of vertical antenna with the microphone gain and squelch set just so and have your radio set for FM. I'm skipping over power, the electrical type, but that in itself can be a feat of endurance.

After hunting around for a list of relevant frequencies, you might also have set up something like CTCSS to ensure that your signal actually gets acknowledged by the repeater.

If that's not enough, you'll also have made your radio use an offset which makes it receive using one frequency and transmit using another.

There's possibly more things you've had to do to make this work and not be subjected to the ire of the local repeater troll who appears to delight in telling you off when they feel you've done something wrong, like leave the roger beep activated or some other infraction.

If you did manage to achieve all these things and actually made your first contact on the repeater, congratulations and welcome to the hobby! Take a breath, you did well.

After a while you're likely to become more familiar with your radio and start exploring the local bands. You might program another repeater into your radio and even experiment with local simplex frequencies.

Each of these activities brings a new experience and new mistakes. For example, not all repeaters use the same offset, or even an offset in the same direction. Not all repeaters have the same CTCSS requirements.

If you're using a simplex frequency, remember to turn off the squelch - don't ask me how I know - so you have a chance to actually hear the other stations, even if you are using FM as the mode.

The process of getting on air as a first time user can be daunting, with many different points of failure along the way.

Ignore the trolls, try your best and ask for help if you get stuck and celebrate your accomplishment when you manage to make a contact.

My point is that achieving all this isn't trivial and it would be helpful if that's remembered from time to time. It's easy to dismiss an achievement made by another, but much more rewarding to celebrate it.

- I'm Onno VK6FLAB

<http://podcasts.itmaze.com.au/foundations>

NOTICE OF SPECIAL MEETING

In keeping with the BC Societies Act, an email sent to all members on October 30th and this Communicator posting is a 14-day notice of motion. This motion may be voted on at either the Annual General Meeting or a Special General Meeting.

The Motion:

To change the society name from "Surrey Amateur Radio Club" to "Surrey Amateur Radio Communications" and make appropriate changes to the associated bylaws.

A copy of the proposed bylaw changes has been emailed to all members.

Notice of Special General Meeting to be held:

Wednesday November 14, 2018 at 7:00PM

EMBC South West Region office

14292 Green Timbers Way, Surrey, BC

Only members in good standing may vote and voting by Proxy is permitted. A proxy form will be distributed. This SGM will be followed by our monthly general meeting.

~ Stan Williams VA7NF, SARC President

SARC hosts an Amateur Radio net each Tuesday evening at 8 PM. Please tune in to the VE7RSC repeater at 147.360 MHz (+600 KHz) Tone=110.9, also accessible on IRLP node 1736 and Echolink node 496228.

On UHF we operate a repeater on 443.775MHz (+5Mhz) Tone=110.9 or IRLP Node 1737.

	SARC Net 20:00 Hrs
1st Tuesday Standby	Drew VA7DRW Dixie VA7DIX
2nd Tuesday Standby	Jinty VA7JMR Sheldon VA7XNL
3rd Tuesday Standby	Rob VE7CZV Vacant
4th Tuesday Standby	Kapila VE7K GK John VA7XB
5th Tuesday Standby	Robert VA7FMR Vacant
Want a turn at Net Control? Contact the SARC Net Manager	

Down The Log...

SARC Monthly Meetings

2nd Wed. (Sept-Jun)
1900 hr at the PREOC
Emergency Mgmt BC
14292 Green Timbers
Way, Surrey, BC

Weekly Club Breakfast

Saturday between 0800
and 1000 hrs at the
Kalmar Family Restaurant
8076 King George Blvd.
Surrey

SARC Net

Tuesday at 2000 hr local
on 147.360 MHz (+)
Tone=110.9

SEPARS Net

Tuesday at 1930 hr local
on 147.360 MHz (+)
Tone=110.9

VE7RSC Repeaters

2m: 147.360MHz+
Tone= 110.9Hz
IRLP node 1736
Echolink node 496228

1.2m: 223.960 Mhz -1.6
Tone=110.9

70cm: 443.775MHz+
Tone= 110.9Hz
IRLP node 1737



We Have A SARC Patch!

These are suitable for sewing on a jacket, cap or your jammies, so you can proudly display your support for the club.

The price is \$4 each or three for \$10 and they can be picked up at a meeting or the weekly Koffee Klatch.

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President/Owner

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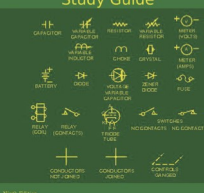
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